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PAPER TRADE JOURNAL

Vol. LXXXIII, No. 10 SEPTEMBER 2, 1926 Per annum, $4.00 Per copy, 10 cents

Daily Newsprint Production on Walmsley Machines

2700 TONS

The daily production of newsprint on Walmsley machines by the end of 1926 in Canada and Newfoundland will be 2700 tons.

It is a striking tribute to the quality of our machines that nearly 50% of the total newsprint production of these two countries should be made on Walmsley machines.

Here is a list of the machines installed and on order:

Abitibi P. & P. Co.	3	The E. B. Eddy Co.	1
Anglo Newfoundland Co.	2	Newfoundland P. & P. Co.	4
Bathurst Co.	2	Powell River Co.	2
Belgo Paper Co.	4	Price Bros. & Co.	9
Donnacona Paper Co.	1	Wayagamack News, Ltd.	2

Of these fifteen have been installed within three years and five are on order

We are prepared to take care of your requirements promptly

Charles Walmsley & Co.
(CANADA) LIMITED

Works: Longueuil, Que.

Office: Montreal, Que.

Preference for Nash based on performance

A typical paper mill installation of the Nash Hytor Vacuum Pump,—Ticonderoga Pulp & Paper Co., Ticonderoga, N. Y.

A good way to check up on the superior performance of Nash Hytor Vacuum Pumps is to speak to practical mill operating engineers. Let them tell you. For they know pumps, and their experience is invaluable.

If you do this, you will find that Nash Pumps maintain their original high vacuum year after year. That they customarily require no attention other than lubrication and packing. That they always are dependable—unfailingly so. And, most important of all,—that, because of their reliable operation, Nash Pumps are the preferred vacuum pumps of the mill engineer.

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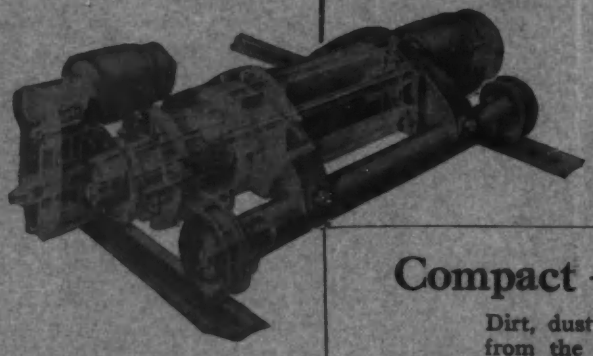

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Balanced Drive, automatic oil bath lubrication, and straight line construction, which assures permanent alignment, are other features that provide steady day in and day out service.

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378 Schuyler Ave., Montour Falls, N. Y.
Branches in Principal Cities
Largest Manufacturers of Electric Hoists in America

SHEPARD
ELECTRIC CRANES & HOISTS

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THESE dyes possess great covering power and yield blue shades of medium brightness on all pulps. They will be found very economical in use.

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NATIONAL N DYES

PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-FIFTH YEAR

Published Every Thursday by the

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TABLE OF CONTENTS

Copyright, 1926, by Lockwood Trade Journal Co., Inc.

Hammermill Agents Meet at Erie 35
Canadian News Print Output Expands 36
Laurentide Has Prosperous Year 36
New Shawinigan Issue 36
Inland Paper Co. To Make Improvements 36
Wrapping Paper Trade Expands in Chicago 38
Rudd & Stronach Buy Barnes Paper Mill 38
Paterson Parchment Paper Going Strong 38
Pilcher-Hamilton Co. Passes Sales Quota 38
Tag Products Co. in New Factory 38
Demand For Paper Good in Los Angeles 40
Paraffine Companies Busy 40
Bright Outlook For Paper Business in Toronto 42
New Brand on Canadian Market 42
Woman Wins Paper Prize 42
Heavy Rains Threaten Wisconsin Mills 44
Sells Machinery To Gross Paper Co. 44
Injured at Hoskin-Morainville Plant 44
Usual Seasonal Dullness in Sweden 44
Leadbetter Lumber & Paper Co. Gets License 44
M. G. Glazed Paper Customs 46
Algonquin Corp. Completes Sulphite Plant 46
Construction News 48
New Companies 48
Good Outlook in Miami Valley 50
Scarcity of Pulp Wood Labor 50
Mohawk Paper Makers Win Suit Against Ford 50
James McNutt Dies 50
New York Trade Jottings 52

Editorial 54
Canadian Pulp and Paper Imports Increase 55
Bryant Co. Lets Contract for Ventilating 55

Technical Section
Parchment Paper and Its Manufacture 57
Angus McIntyre Resigns 62
Current Paper Trade Literature 63

Cost Section 65
Imports of Paper and Paper Stock 73
New York Market Review 76
Miscellaneous Markets 78
Market Quotations 80

Want and For Sale Advertisements, 82, 83, 84, 85

When an industry is subjected to violent foreign competition

When the foreign production is admittedly sold below cost

When the domestic industry survives the test

The domestic article it produces must be worthy

Domestic Clay has stood every test of foreign competition

It has survived because today it can give:

QUALITY
and
SERVICE

We guarantee prompt service and high quality of Paper-filling Clay.

We will cooperate—We can satisfy.

R. T. VANDERBILT CO.
50 East 42nd St.
NEW YORK

ESTABLISHED IN 1872

PAPER TRADE JOURNAL

With Which Is Combined

PIONEER

The Magazine of the Paper Industry

Vol. LXXXIII, No. 10 Thursday, September 2, 1926

Hammermill Agents Hold Conference at Erie

Fifteenth Annual Meeting of Agents From All Over the Country Is Largely Attended and Is a Big Success in Every Respect—Feature of the Meeting Is the First Showing of the Motion Picture Film of All the Operations of Paper Machinery at Mills of the Hammermill Paper Co.

ERIE, Pa., August 30, 1926.—The Hammermill Paper Company, the pioneer in holding agents' conferences, met with the executives of the paper houses who distribute its lines for the fifteenth consecutive time on August 25, 26 and 27. From all sections of the country these men came to take part in the most extensive program ever carried through at a Hammermill Agents' Meeting. Business sessions got under way on scheduled time. Instead of the usual two afternoons being devoted to outdoor sports and recreation, Friday afternoon alone saw activity in this line.

On the evening of August 25, the visiting agents were the guests at the first public showing of the new five reel motion picture, "The Voice of Business". The picture was made for Hammermill by Underwood and Underwood. The opening scene shows Moritz Behrend, the son of E. R. Behrend, the president of the Hammermill Paper Company, struggling to find a suitable theme to write an essay on the romance in industry for his school work. His father suggests the romance that can be found in a sheet of paper.

From there the scene shifts to the unloading of pulpwood at the dock and follows the paper making process in detail to the final loading of the finished product for shipment. The picture tells the story of paper making to the uninitiated more fully than a trip through the plant could tell it. Animated drawing show the many hidden operations and microscopic views show the changing condition of the fibers until they come off the paper machine.

The following is the advisory committee:

Ross P. Andrews, R. P. Andrews Paper Company, Washington, D. C., 1927.

Geo. McKinney, F. A. Flinn, Inc., New York City, 1927.

J. B. Jones, Western Paper Company, Omaha, Neb., 1927.

W. G. Cleveland, E. C. Palmer & Co., Ltd., New Orleans, La., 1928.

Frank E. Floyd, Crescent Paper Company, Indianapolis, Ind., 1928.

Thos. R. Fort, Jr., Thos. W. Price Company, Philadelphia, Pa., 1928.

R. L. Tillman, Beacon Paper Co., St. Louis, Mo., 1929.

John D. Swigart, Swigart Paper Co., Chicago, Ill., 1929.

Harold Zellerbach, Zellerbach Paper Company, San Francisco, California, Permanent.

The following were the prize winners:

GOLF

KICKERS HANDICAP

Group I—E. R. Carpenter (74)
Prize—Leather Golf Bag

Group II—D. S. Leslie (91)
Prize—Pair of Golf Clubs

Group III—W. B. Stevenson (102)
Prize—Dozen Golf Balls

PUTTING

1st—R. S. Bull
Prize—Silver Flask in Leather case.

2nd—F. F. Fox (on draw)
Prize—Dozen Silver King Golf Balls.

DRIVING

Winner—R. S. Bull
Prize—Leather Coat.

LOW GROSS

Winner—Albert Miller (92)
Prize—Silver Putter

LOW NET

Winner—W. N. Schaefer (73)
Prize—Pair of clubs

2nd—Geo. Johnston (74)
Prize—Rickey Sticks.

QUOITS

1st—A. W. Leslie
Prize—Humidor.

2nd—G. R. Likins
Prize—Whist Set.

BOWLING-ON-THE-GREEN

1st.—W. A. Rhodes
Prize—Set Dominoes

2nd—A. C. Thomas
Prize—Humidor.

(*Continued on page 70*)

Canadian NewsPrint Output Expands Rapidly

Total Tonnage Exported During First Seven Months Amounted to 968,881, an Increase of 183,891 Tons Compared With Same Period Last Year—Eleven New Machines With Additional Capacity of 1,000 Tons Daily, to Begin Operation Before Close of 1926.

MONTREAL, Que., August 28.—The figures showing Canada's production of news print continue to mount at a phenomenal rate, and to prompt the question as to how long the present unprecedented expansion of the industry can continue. For instance, during the first seven months of the present year this country has exported no less than $63,866,812 worth of news print. The total in tons was 968,881, which is an increase of 183,891 tons, or over 23 per cent as compared with the export in the same period last year. Eleven machines are scheduled to come into production in Canada before the end of the present year, with a total additional production of 1,000 tons of news print per day.

Laurentide Had Prosperous Year

The annual report of the Laurentide Company, Ltd., which has just been sent out to shareholders, shows that earnings were maintained during the year ending June 30, despite the $5 per ton reduction in the price of news print during the last six months of the period.

Operating profits for the period were $2,486,267, while miscellaneous profits of $146,682 and income from investments of $388,918, brought total income to $3,021,868 as compared with $3,061,663 in the preceding year. Interest requirements were substantially lower at $316.293, while the depreciation allowance was a bit higher at $798,741. These deductions left net profits at $1,906,833 as compared with $1,909,975. The payment of the usual dividends totalling $1,728,000, left a surplus of $178,833 for the year, and brought the total at credit of profit and loss to $2,467,964.

The balance sheet shows a decided improvement in the working capital, which is increased by $660,000. The bank loan, which at the end of the last fiscal year stood at over $2,300,000 is completely wiped out. Net working capital is shown at $7,966,604. The annual meeting is to be held in Montreal on September 21.

New Shawinigan Issue

The Shawinigan Water and Power Company, which is closely associated with the pulp and paper industry in the St. Maurice Valley, has decided to make a new issue of common stock amounting to $2,500,000. This is to be offered to shareholders at $150 in the rates of one new share for every 10 shares held. This is at a premium of $50 a share; at the time of writing the old stocks is selling at $217 per share. The new capital thus obtained is for general expansion. Last spring the company purchased a 20 per cent interest in the Duke Price Power Company, and contracted for 100,000 h.p. of that company's output. To take care of this the Shawinigan Company is building a 140-mile transmission line, and the cost will to a considerable extent be met by the present sale of stock.

New Western Mill

Detroit interests are behind a plan for the establishment of a mill at St. Boniface, Can., to manufacture coarse paper products from waste paper now being shipped out of the Province or destroyed. Approximately 100 tons of waste paper are shipped weekly from Winnipeg to the Twin Cities, and large additional quantities are available.

St. Anne Paper Company

It is stated here that a stock issue will shortly be made to provide capital for the construction of the St. Anne Paper Company's news print mill. The company was formerly known as the St. Anne Power and Paper Company, but the shorter name has been adopted. Contracts have already been let for the construction of a mill near Quebec City, and too news print machines are being manufactured for the Company by the Dominion Engineering Works. These will have a capacity of around 250 tons per day. The mill is not expected to be in operation before next June.

Brompton Financing Ratified

At an adjourned special general meeting of the Brompton Pulp and Paper Company, on Friday, a resolution was unanimously adopted approving of the creation ot bonds for a new issue of $5,000,000 par value.

Inland Empire Paper Co. To Make Improvements

SPOKANE, Wash., Aug. 30, 1926.—A capital increase of $350,000 for making additions and improvements is contemplated by principal stockholders of the Inland Empire Paper Company.

In the past when capital increases have been made the stock has been taken by the present owners, and it is likely that the same procedure will be followed this time. That virtually assures that all the contemplated improvements will be made quite rapidly.

Lewis M. Alexander of St. Petersburg, Fla., vice-president, said that the plans call for a new paper machine of the latest type and all the necessary accessory machines. Provision for the machine was made during the last year, when a new machine room 856 x 140 was built. This room has a pit ready for the installation of the new machine, the fourth in the paper mill battery.

It will be 200 feet long and the paper width turned out will be 18 feet, to be cut into three rolls 72 inches wide, the news print size. The present machines have a width of two 72-inch rolls each. The new machine will deliver a paper at the rate of 1100 to 1200 feet a minute, while the fastest of the three machines now in use delivers 750 feet a minute. No faster machine is made than the one the company contemplates installing.

Production will be increased from the present 2800 tons a month to 5000 tons. This increase means the addition of 150 men to the payroll, which is now 300, not including the men getting out logs in the woods.

The company will build another sulphite tower, where wood is reduced to pulp by a chemical process, and will also install new grinders for making pulp by mechanical means.

The improvements, Mr. Alexander said, will place the mill in the fifth class among paper mills of the United States and Canada.

Martin Pulp & Paper Co. Adds Machine

NORWOOD, N. Y., August 30, 1926.—The Martin Pulp and Paper company whose mill is located at Yaleville, one mile north of this village has just completed a storage room addition to its mill and will install a new paper machine in that part of the mill formerly used for storage. The new addition consists of a storehouse 32 x 145 and a boiler room 38 x 48 feet.

The new machine to be installed is like the present machine. A 94 inch Bagley and Sewall product, for the manufacture of tissue paper and will double the present output, increasing the possible production from 3,000 tons to 6,000 tons of tissue per year.

Besides the new paper machine the company is also installing a new boiler and a 125 horsepower Erie variable speed engine.

The manufacture of tissue was taken up by the company two years ago last March, and the quality of the production, and the demand of this product has led to the installation of the second machine.

MATHIESON Chemicals

Mathieson Traffic Service

THE complicated industrial structure of today has made transportation one of the foremost problems with which industry has to contend. Expert traffic counsel has become essential to the prompt and efficient handling of freight movements.

In the chemical-consuming industries in particular, where highly technical materials are dealt with, the traffic expert is indispensable. Yet the average user of chemicals is but poorly informed on traffic matters and comparatively few can afford to maintain a traffic department of their own.

It is for this reason that the Mathieson organization includes a full staff of traffic experts for the service of all customers. Questions of freight rates, routings, tracing and expediting of shipments, claims against carriers, etc., are all handled for Mathieson customers by our well organized Traffic Department. Our staff welcomes the opportunity of assisting customers with their traffic problems and is on the alert at all times for traffic changes which might affect their interests, whether or not such changes have any direct connection with Mathieson products.

Consumers should give careful consideration to the advantages of Mathieson traffic service before seeking a source of supply elsewhere.

The MATHIESON ALKALI WORKS Inc.
250 PARK AVE. NEW YORK CITY
PHILADELPHIA CHICAGO PROVIDENCE CHARLOTTE

Caustic Soda - Liquid Chlorine
Bicarbonate of Soda
Anhydrous Ammonia

EAGLE THISTLE PRODUCTS

Soda Ash - Bleaching Powder
Modified Virginia Soda
Aqua Ammonia

Deal Direct with the Manufacturer

Wrapping Paper Business Expanding in Chicago

Demand Continues to be Well Maintained Even Through Hottest Period — Southern Kraft Quotations May be Advanced in Near Future—Fine Paper Market Still Dull and Lifeless—Barnes Paper Mill Changes Hands—New Fourdrinier Machine Being Installed.

CHICAGO, Ill., August 28, 1926.—The majority of handlers of pick-up of trade has not been as brisk as was reasonably expected. A slight spurt about three weeks ago gave indication that the summer slump was breaking, but the dull period still hangs on, nevertheless.

Wrapping paper houses, most of them, have transacted a record business this year. Even through the hottest period there has been an unceasing demand. No doubt most concerns will find this the best year in their history. Southern Kraft is thought to be due for another advance soon.

Paper stock firms are still inactive, but there is a feeling in the air that the usual fall demand will soon be in evidence, and that prices will stiffen. They could stand such an experience very well just now, dealers think.

Rudd and Stronach Buy Barnes Paper Mill

Two Chicago sales managers have combined in the purchase of the Barnes paper mill, at Rochester, Mich. These men are Robert E. Rudd, western sales manager of the Standard Paper Manufacturing Company, of Richmond, Va., and William O. Stronach, of the Byron-Weston Company, Dalton, Mass. They have presented their resignations, effective at once, and will remove with their families to Rochester about October 1. S. J. Fortune, superintendent for the Standard Company for sixteen years, will join the new company September 1. He is a thoroughly experienced blotting paper man.

A Michigan corporation is being formed for the purpose of manufacturing blotting, mattrix and filter paper, and the new name of the Barnes mill will be the Rochester Paper Company. Mr. Rudd will be president and Mr. Stronach secretary-treasurer. The former has been with the Standard company for ten years, selling blotting paper to the jobbing trade throughout the United States and Canada. The latter has been covering the jobbing trade for the Byron-Weston company from Chicago to San Francisco for the past five years. A new Fourdrinier machine is being installed at the Rochester plant by the Shartle Brothers Machine Company, of Middletown, Ohio. The plant is to be thoroughly reconditioned and the new company hopes to be manufacturing blotting paper in the late fall. Rochester is located about twelve miles northwest of Detroit, and the location is favorable to quick shipments throughout the Middle West.

Paterson Parchment Paper Going Strong

Paterson Parchment Paper Company, W. J. Cox, manager, has been extremely busy all summer long. The reason for this is the strong demand for butter wrapping paper; and all that could have been hoped for is that the lard business should pick up. Hogs have not been very plentiful up to this time, which naturally reduces the manufacture of lard, and consequently affects the parchment paper demand unfavorably. Even that situation is improving, so that the Paterson concern will call it a mighty good year when the books are closed for 1925.

Salesmen's Association Resumes Activities

The Chicago division of the Salesmen's Association of the Paper Industries will start meeting again the first Monday following Labor Day. The golfing members of the Chicago division have set themselves to the task of keeping the Outterson Memorial Silver Trophy in the Windy City for another year. The trophy, which now adorns the west wall of the office of Secretary James H. Coy in the Conway building, was won last year by the Chicago local.

Pilcher-Hamilton Co. Passes Sales Quota

The Pilcher-Hamilton Company passed its sales quota August 20, but there is no indication of any let up in the effort to secure orders. This concern has some keen but friendly rivalry going on among its salesmen, who are almost neck-and-neck in the race to secure business. A bulletin board on one of the walls with gold stars opposite the twenty or more salesmen's names, shows how the contest is progressing. These monthly contests are pepped up by cheerful rooting from the sidelines by President Hamilton, who seems to be encouraging everybody at once. It certainly brings results, and makes everybody happy, too.

Wrapping Paper Association Outing

A very successful outing was held by members of the Wrapping Paper Association of Chicago at the Medinah Golf Club on the afternoon of August 27. There were about forty members and guests present, and of course a golf tournament was held, in which the scores were said to be not at all bad. The wrapping paper boys were in luck, for the weather was almost perfect.

Control State Association to Meet

The Central States Paper Trade Association will meet in Cincinnati, Ohio, September 9; and on the 14th the Middle States Wrapping Paper Association will hold a meeting at St. Louis. These meetings, coming as they do only two weeks in advance of the four-day convention of the National Association in Chicago, will keep Secretary C. K. Higgins very much on the move—although that is no new experience to Mr. Higgins.

National Convention to Be Strictly Business Affair

As announced in the August 19th issue of THE PAPER TRADE the convention of the National Paper Trade Association, will be held at the Sherman Hotel, Chicago, October 4, 5, 6 and 7. It should be noted by members that the convention headquarters this year have been changed from the Drake Hotel to the Sherman Hotel, which latter is particularly well-equipped to give special convention service. Those wishing room reservation should write immediately to Ernest Reul, assistant manager of the Sherman Hotel; and by all means don't forget to mention that you are a member of the Paper Trade Association. It will mean a lot in getting attention and service.

The convention this year will be a strictly business affair. No entertainment features, except a luncheon. This policy is in line with that adopted by associations in many industries, which find that entertainment attractions conflict with the purpose of the conventions. Mr. Higgins is confident that the attendance this year will be record-breaking, inasmuch as there are some vital matters to be discussed.

Tag Products Co. in New Factory

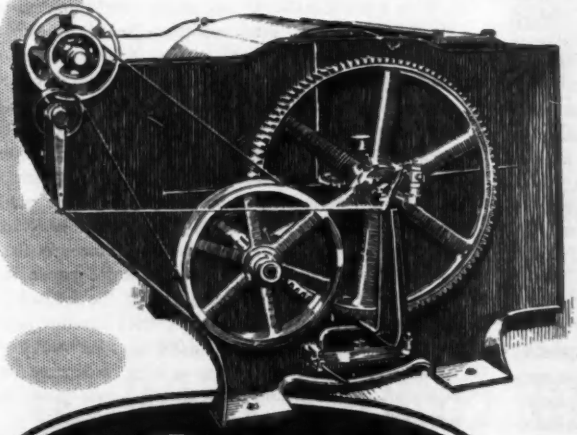
[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., July 19, 1926.—The Tag Products Company, Inc., 86 North 4th street, is now in its new roomy factory. It will manufacture paper tags, gummed labels, cardboard products and all similar articles.

B. H. Gilman is manager of the factory. Associated with him are Lee Boyer and J. Winkler.

What does it cost

Per pound of fibre recovered



The BIRD SAVE-ALL

If this is the question you ask before selecting your white water recovery equipment, Bird Save-Alls will answer it to your satisfaction.

Bird Save-Alls are designed to secure high efficiency plus least cost for installation, operation and maintenance. Will you let us give you the figures for your particular case?

77

BIRD MACHINE COMPANY BIRD MACHINERY SOUTH WALPOLE, MASS.

Demand for Paper Good in Los Angeles

Conditions in Coarse Paper Division of the Market, However, Continue Decidedly Unsatisfactory—Trade Promotion Departments of Which Blake, Moffit & Towne Have a Conspicuous Example Big Aid To Merchandising of Fine Papers

LOS ANGELES, Cal., August 27, 1926.—Unlike Ceasar's Gaul, which was divided into three parts, the paper trade in Los Angeles at the present time is divided into but two parts—fine papers and coarse papers. On the first of these present trade is good, mighty good, exceeding that of any recent preceding year, and now that schools are about to open the prospects are that the trade will increase so rapidly and so largely that the industry is looking for the most prosperous fall demand it ever has had. This condition affects practically every factor in the business here just now and nearly every one is enthusiastic over the prospect.

Conditions in Coarse Paper Not Good

The condition as respects coarse papers is directly the reverse. As a matter of fact the competition on these grades is so fierce that many an order is taken at an advance over factory and overhead costs so small that after the paper incurs the cost of local delivery money actually is lost on it. The fact is that the coarse paper trade in Los Angeles has been permitted to get into an absolutely incurable position and just what to do about it no one seems to know. This morning, after a round of the paper houses in Los Angeles your correspondent was informed by several of the concerns that in all probability some of them would be compelled to quit the coarse paper business in the near future. "For what is the use", said they, "of selling paper at less than cost for the fun of selling it?"

And that's the fact—it's sold apparently just for the fun of the thing and no concern engaged in the business appears to expect to make a profit on any deal it may negotiate. The reason for this unfortunate and unsatisfactory condition? Well, that's a long story and goes back several years. It began when dumping began out here on the coast and ever since that time the prices have gone down and down and down until at last there is no profit left for anybody. To ask anyone here about things in the coarse paper division of the business is merely to invite wrathful comment or gnashing of teeth at the least. As a matter of fact, the coarse paper market "jist ain't," that's all.

Better Merchandizing

From such a deplorable tale of woe it is a pleasure to turn to the fine paper division. As said above the trade on papers in this department of the industry is booming and bids fair to surpass all previous records. Possibly a part of the better conditions which affect fine papers is due to a better merchandising of them. Most of the local paper jobbers have what they call their trade promotion departments, which have for their reason the cooperating of the paper jobber with the printer and with the ultimate consumer of fine papers to the end that the wishes of all three factors in every deal shall be conserved to the best advantage.

Take for example of these departments that maintained by Blake, Moffit & Towne, 242-48 South Los Angeles street. Here, just inside the main entrance to the retail department of the jobbing house, is a large room devoted to the display of all kinds of fine paper stocks used in practically every way such papers can be used through the intermediation of the printer. The walls are literally covered with samples, both in single items of display and in multiple from just two or three varieties to reproductions of portfolio displays of printed advertising matter. To this symposium of the printer's art the prospective customer is sent by the printer to figure on his advertising and to get ideas of the best display advertisers of the country have employed in their campaigns on any merchandise whatsoever.

This department of Blake, Moffit & Towne's stock is presided over by Fred J. Worsley and Bruce Kleinsmid, two young men who are experts as respects paper, the use of illustrations and the possibilities of the printer's art. These young men cooperate with the prospective advertiser by showing him, from a file of examples collected from all over the world, what he may be able to do within the compass of his purse with any campaign he may have in mind.

Nearly everybody who has a mail campaign of advertising under contemplation is pleased and complimented with such apparent disinterested cooperation and advice, because in this department no prices are quoted nor are any sales made. Everything is accomplished purely by suggestion. But that such suggestions are effective is evidenced by the large volume of fine paper business done by the concern. Other paper jobbers have similar departments which operate in much the same way. The one mentioned is done so merely as typical of one of the merchandising methods employed by the Los Angeles paper jobbers in promoting sales for their goods.

Paraffine Companies Busy

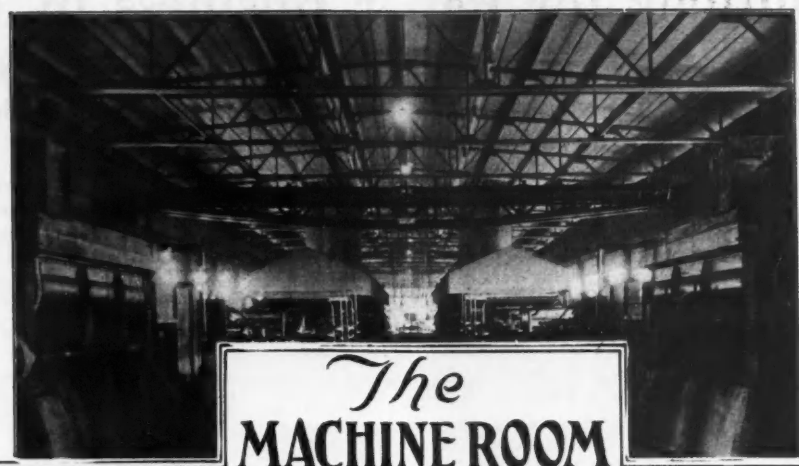
Out here on the Pacific Coast the name of the Paraffine Companies, Inc., is one to conjure with. This is an immense institution with some $15,000,000 of capital and some seventeen plants on the far west coast, scattered from Seattle to San Diego. Five of these plants are centered in Los Angeles. One of the most interesting of these makes no paper at all, it merely buys and sells the raw materials from which paper is made. Probably few of the more than a million of Los Angeles inhabitiants know or realize that there is in their midst such an institution.

Located at 2417 McPherson street, a street which runs parallel with Sante Fe Avenue. but so retired from the public gaze that it easily can be and is passed by without notice from the thousands of people who traverse Sante Fe Avenue, is the plant which for the handling and disposition of waste paper stock has the largest capacity of any similar plant in the United States. This branch of the Paraffine Companies, Inc., handles paper stock exclusively and has a capacity of 7,000 tons monthly. All day long there is standing at its doors a long string of motor trucks loaded with all kinds and varieties of waste paper stock waiting to get to the unloading chutes.

Within the building are long automatic carriers which receive and distribute the waste papers to various departments. In fact, waste paper here never is handled by hand, everything being done by machinery. About the only hand work which is done is in the sorting as the waste paper passes the lines of sorters on conveyors.

Immensely powerful hydraulic presses are used to bale the waste stock, which according to its variety finds differing markets. For instance every month 2,000 tons of waste newspaper are shipped to the Orient where they are used as wrapping paper by the oriental merchants. Every month 1,000 tons of book paper is shipped to the East for the use of the paper mills in that section of the country. Most of the remaining part of the 7,000 tons which go through the plant monthly is shipped to the other plants of the Paraffine Companies, Inc., by which it is converted into paper of various grades. The manager of this plant

(Continued on page 78)



The MACHINE ROOM —the most important part of the Paper Mill!

Your machine room is where heating and ventilating requirements are most severe in both first cost and operating cost.

Cost of production and also quality of production are really dependent upon the efficiency of the heating and ventilating equipment in the machine room. Failure of the system in this part of the mills proves costly.

It must be dependable, as well as efficient—at all times.

Ross Vapor Absorption Systems.

Briner-Economizers
Licensed under patents of E. A. Briner and John Alexander

Machine Room Ventilation.

Blower Systems of all kinds.

Drying and Conditioning Systems for all departments.

Remodeling of unsatisfactory systems.

Machine room heating and ventilating is no longer a subject for guesswork. Our organization devotes its entire effort and time to the science of this work and is the logical headquarters for any information desired regarding heating and ventilating problems in your mill. Put it up to specialists.

Discuss your mill problems with Ross Engineers—now. You incur no obligation.

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ROSS ENGINEERING OF CANADA, Limited
New Birks Building, Montreal, Quebec

ROSS SYSTEMS
HEATING - VENTILATING - DRYING

Bright Outlook for Paper Business in Toronto

Record for First Eight Months Surpasses That of the Corresponding Period Last Year—Big National Exhibition, Just Opened, Attracting Many Customers—Fair Contains Some Interesting Paper Displays—Book and Writing Paper in Demand

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., August 30, 1926.—The first eight months of the paper business in both manufacturing and distributing circles have come to a close and reports presented are generally to the effect that the volume is ahead of the corresponding period of 1925. August has turned out to be a better month than many jobbers expected and of late the printing trade has been fairly busy. Manufacturing stationers have also done well and, in the school book and supply line, are now rushed, while work is going ahead satisfactorily in a good volume of fall delivery business. Many visitors will be in the city this week calling upon the jobbing concerns and attending the big national fair which attracts an attendance of over a million visitors from all parts of Canada and the United States, a large number of these being customers of various business houses in all lines of merchandise.

In the forestry section of the new Ontario government building, the Department of Lands and Forests has made a creditable exhibit of the wooded resources of the province and the showing of pulpwood is instructive. Various stages in the process of making paper are viewed with interest. E. J. Zavitz, Deputy Minister of Forestry for Ontario, is in charge. The Interlake Tissue Mills, of Merritton, have a pleasing and complete display of all their lines, including colored crepe tissues and other novelties.

The rag and paper stock market is fairly active at the present time. There has been a slight reduction in the price of white envelope cuttings and strictly over-issues, while white and fancy shirt cuttings are down about three quarters of a cent per lb. In the ground wood pulp market, physical conditions, so far as manufacturing is concerned, are good, but prices are a little weaker. While $30 is the prevailing figure for the best grade at the mills, some buying at a less rate has been carried out. Chemical pulps are holding up better and there are no changes in quotations.

The fall catalogue season will soon be on and large orders are being placed with book and writing mills. During August current orders with these plants were rather light but they were booked up with heavy tonnage earlier in the season which kept the industry going to capacity. Some manufacturing concerns had difficulty in making prompt deliveries, the volume being so large. The outlook for fall is promising.

Woman Wins Paper Prize

Sometime ago the United Paper Mills, Toronto and Hamilton, offered a prize of $25 for the most acceptable name for a new line of paper which the firm has just perfected. It is a Canadian made paper, bond on one side and coated on the other and comes in 22 x 34-52. The stock is suitable for the increasingly popular illustrated letter of four pages. The premium was captured by Mr. M. N. Page, of Page-McCausland, Limited, Toronto, who submitted the name "Illustro-Bond," which becomes the exclusive property of the United Paper Mills. Several hundred suggestions were received in the contest.

American Publishers Taking Precautions

There was an agitation some weeks ago on the part of Canadian publishers to have all printed matter coming into Canada taxed, but nothing has been heard of the move of late. In case it should arise again, publishers of some United States periodicals are now sending notices to subscribers to the effect that Canadian subscriptions are accepted with a reservation that, should a Canadian tax or customs duty be imposed on United States magazines, the publishers shall have the right at that time to increase the subscription price sufficiently to meet the added expense. In that event, a proportionate amount of the original payment for the then unfilled term of the subscription will be devoted to sending copies at the new price, the subscriber, however, having the option of discontinuing the subscription and receiving a corresponding cash refund.

New Brand on the Canadian Market

The United Paper Mills, Toronto, have been appointed Ontario distributors of Maidstone leaves and coverings, manufactured by the Advertisers Paper Mills, Holyoke, Mass. The paper comes in leaves, coverings and heavy coverings, in six colors, and all sizes, and has a deckle edge running the long way of the sheet. The stock is also noted for its old world appearance.

Notes and Jottings of the Industry

George Barber, assistant treasurer of the Spruce Falls Power and Paper Company, Toronto, spent a few days recently at the plant of Kapuskasing, Ont., where good progress is being made in the construction of the addition to the sulphite mill, and in the erection of over forty new houses for the employes of the company.

John Halls and Arthur Morice, of the Fred W. Halls Paper Company, Toronto, are spending their holidays in a motor tour to Montreal, and en route visited the paper mills in Cornwall.

No decision has been reached as yet regarding the date of the annual convention of the Canadian Paper Trade Association, but it is expected that the gathering will be held in Toronto.

Richard Beaston, who is in charge of wood supplies for the West Virginia Pulp and Paper Company, Tyrone, Pa., spent a few days in Toronto recently as the guest of James Thompson, of the Thompson and Heyland Company.

John Robb, of the Dominion Engineering Works, Montreal, was in Ontario during the past week visiting a number of pulp and paper plants. He reports that his company is busy and sharing in the general prosperity of the industry.

Arthur Jewitt, manager of the Montreal office of the Provincial Paper Mills, was in Toronto during the past week on business.

F. L. Ratcliff, of the Ratcliff Paper Company, Toronto, was a member of the Board of Trade delegation went to Quebec city during the past week to meet the Diwan of India, who formally opened the Canadian National Exhibition in Toronto on August 28.

T. H. Best, the veteran head of a large printing firm in Toronto, celebrated his golden wedding last week. He has resided in Toronto for 35 years and started the first magazine ever published in the Dominion, which is still in existence. Mr. Best is 78 years old and still active.

It is reported that Kinleith Paper Mills, St. Catharines, which have been idle during the past two years, may resume operations at an early date. Negotiations are now going on and certain concessions will be asked from the city in the shape of exemption of taxation for a term of years.

W. J. Gage & Company, Toronto, are making an attractive exhibit at the Canadian National Exhibition, in which is featured Holland linen in various attractive forms, as well as other lines of writing paper and papeteries. The display is in charge of Charles Parkinson and Samuel Beare.

Your Paper is Made in Your Beaters!

Your cost of making paper is the sum of three items: (a) the raw material, (b) the labor item, (c) the plant investment with its up-keep. We can help you on the last two items. "Your paper is made in your beaters."

In Dilts approved NEW TYPE beating engines you can circulate your raw material much faster than in standard Hollander beaters and use no more power in so doing. You can furnish the beaters quickly, circulate and beat off the stock rapidly and evenly, and finally dump them cleanly and quickly. The Dilts approved NEW TYPE beaters will handle heavier stock, they will operate economically, and your expense for power, labor, and for up-keep will be reduced to the very minimum.

The Dilts approved NEW TYPE beating engines, with their time-saving and power-saving tubs, their keyed, bandless, steel-head rolls, their alloy steel fly bars, their spring cushioned lighter bars supported in the Dilts famous Rigid Stands, are indeed an improvement over the beaters of former years.

You should take immediate steps to secure Dilts approved NEW TYPE Beating Engines for your plant. "Your paper is made in your beaters."

Dilts

MACHINE WORKS, Inc. FULTON, N.Y.

EXPORT OFFICE ~15 PARK ROW~ NEW YORK CITY

Heavy Rains Threaten Wisconsin Valley Mills

Precipitation Is So Great and River Rises So Rapidly That Not Only Were Thousands of Acres of Riparian Lands Flooded But Damage Was Done to the Dam of the Wisconsin River Pulp & Paper Co. at Stevens Point—River Rises About Ten Feet

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., September 1, 1926.—Heavy rains last week were threatening to raise havoc with paper mill dams of the Wisconsin River Valley. So great was the precipitation, and so rapidly did the river rise that not only were thousands of acres of riparian lands flooded but damage was done to the Wisconsin River Pulp and Paper Company's dam at Stevens Point, Wis.

The splash board of the paper company's dam was carried away in the flood, and further damage was caused when the dam gave way, the water carrying along approximately 400 feet of the temporary dam which was built by C. R. Meyer and Sons Company, of Oshkosh, in preparation for the new permanent dam.

The break came entirely without warning, and during the entire night of Saturday, August 21, a large crew of workmen struggled feverishly to save the temporary dam. The men clung to their tasks until their lives were endangered and would desert one section only to save another. At intervals of several hours additional sections of the dam were carried away until late Sunday night.

The floods reached their crest during Sunday night, but were abating on Monday. It was stated that the river was about ten feet higher than it had ever been in the same month of any preceding year.

Sells Machinery to Gross Paper Co.

W. M. Peavey, manager of the William M. Peavey and Company, Ashland, Wis., announced last week that the machinery owned by the company had been sold to the Gross Paper Company, of St. Paul, Minn., and would be removed from the mill in the east end of the city immediately.

Mr. Peavey has been forced to move by the purchasing of the mill by W. B. Clubine, and after search through the city, has been unable to find another suitable location.

The machinery will be moved to the St. Paul plant of the Gross Paper Company, it was announced.

Visit Ladysmith Plant

H. H. Fish, Sr., president of the Western Newspaper Union, and also of the Great Western Paper Company. E. W. Julien, vice-president of the Western Newspaper Union, and J. B. Jones, vice-president of the Great Western Paper Company, were in Ladysmith, Wis., last week on a visit of inspection to the local plant of the Great Western Paper Company. These gentlemen are all from Omaha and Messrs. Fish and Julien were accompanied by their wives. Mr. and Mrs. Fish were guests of their son, H. H. Fish, Jr.

Injured at Hoskin-Morainville Plant

Elias Ellison, aged 48, was seriously injured at the Hoskin-Morainville Paper Company plant in Marinette recently. Both of the man's legs were broken and he suffered a serious scalp wound when a swiftly revolving drum-shaped pulp beater broke, a piece of the heavy machinery striking Ellison and knocking him six feet. The scalp wound was received when he fell to the floor. His physician said he may recover.

Usual Seasonal Dullness in Sweden

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., September 1, 1926.—The Swedish pulp and paper markets are undergoing the usual seasonal dullness which is even more pronounced this year owing to the fact that practically all of the present year's output has been sold, states a report from Consul General Claude I. Dawson, Stockholm, made public by the Department of Commerce.

Sales of sulphite pulp during June are reported to have reached about 20,000 tons, of which 4,000 tons were for delivery in 1927. The United States is now the most important customer, purchases by Great Britain having been considerably reduced lately, owing to the standstill at a number of British mills following the coal strike. There has also been a marked decrease in the volume of sales to France, Belgium, and Italy on account of the depreciation of their respective currencies. Prices show practically no change, except for a slight weakening in strong sulphite. Sales of mechanical groundwood have been more satisfactory in volume, about 25,000 tons of wet and 2,300 tons of dry pulp having been disposed of in June for delivery this year. Most of the wet pulp was taken by Great Britain and France.

Exports of wood pulp during the first six months of the current year were slightly above those during the corresponding period in 1925, shipments comprising 305,829 metric tons (metric ton equals 2,205 pounds) of sulphite pulp, 125,417 tons of sulphite pulp, and 73,521 tons of mechanical groundwood. Exports during the same period last year comprised 288,457 tons of sulphite pulp, 99,898 tons of sulphate pulp, and 85,222 tons of groundwood.

The monthly statistics published by the Swedish government do not indicate the country of destination of shipments made to foreign countries. Unofficial statistics indicate, however, that during the first five months of 1926, 140,848 tons of wood pulp were shipped to the United States, of which 69,438 tons represented sulphite pulp and 60,649 tons represented sulphate pulp. Shipments to Great Britain ranked next in importance totaling 96,202 tons. Other leading customers were France and Norway, each of which took approximately 45,600 tons, followed by Belgium and Italy, with purchases amounting to around 15,000 tons.

Exports to Great Britain are practically on a level with those during 1925 while exports to Norway decreased 20 per cent. The heaviest decreases occurred, however, in exports to Germany and Japan, shipments to the former country having fallen from 19,546 tons during the first five months of 1925 to 2,747 tons during the corresponding period this year, while shipments to the latter country shows a decrease from 8,514 to 2,471 tons.

The unofficial figures of exports by countries include the actual weight of the wet pulp shipped, not reduced to dry weight.

Similar conditions prevail in the paper market. The year's output of newsprint paper has been practically disposed of, and prices have remained stable since the early months of the year. Production during the first half of the current year reached approximately 95,000 tons, and according to official statistics shipments totaled 84,000 tons. Swedish wrapping paper manufacturers so far report that the recent duty imposed on wrapping paper by the British government has not affected their sales to that country. Prices have shown no change since the beginning of 1926.

Leadbetter Lumber & Paper Co. Gets License

PORTLAND, Ore., August 19, 1926.—The Leadbetter Lumber and Paper Company has received a permit to operate in Oregon, the license being granted August 12. The corporation has a capitalization of $3,000,000. It is headed by Fred W. Leadbetter of Portland.

SELF SUPPORTING

We have developed a self supporting steam or water joint for calenders. The adjustment is automatic when the plugging of the sheet separates the rolls.

Over one hundred now in use

Ask Us

The Pusey and Jones Company

WILMINGTON, DELAWARE
U. S. A.

Machine Glazed Paper Trade Customs

1—Uses of Paper

All orders for M. G. Paper are accepted for wrapping purposes only unless otherwise specifically stated.

2—Basis Weight of Manufacture

All M. G. Paper is made on a basis of 24 x 36—480 count only.

3—Billing Weight

All M. G. Paper is billed at actual weight, including twine, wrappers, plugs, and chipboard or strawboard cores, which are not returnable. Iron and metal tipped fiber cores are charged for, but are returnable at price charged when returned freight paid.

4—Commercial Delivery

An average of 5 per cent over or under basis weight on any item ordered constitutes good delivery. On special orders of 5 tons or less, over-runs or under-runs not exceeding 10 per cent constitute good delivery. On special orders exceeding 5 tons, over-runs or under-runs not exceeding 5 per cent constitute good delivery.

5—Marking and Labeling

No package is marked, stenciled, or labeled by the manufacturer with other than the actual dimensions, basis weight, or contents. Where distributors require rolls or bundles labeled with their own brand name, labels are supplied by them, express prepaid, or, if made up by the manufactured, are charged for at actual cost.

6—Basis of Price

The prices at which M. G. Papers are quoted and sold are based upon paper in rolls of a diameter of not less than 9" and of a width of 6" or wider.

Baker's Paper

BAKER'S PAPER—basis weight 24 x 36—480, 20 lb., 23 lb., or 25 lb.

Krafts, Sulphites and Bleached

KRAFT, SULPHITE, and BLEACHED—basis weight 24 x 36—480, 25 lb. and up.

For *each pound lighter than 25 lb.* basis down to and including 20 lb. 10c per cwt. is added to basis price. For *each pound lighter than 20 lb.* down to and including 15 lb., 20c per cwt. is added to 20 lb. price.

Prices lists are based on *carload lots*, F. O. B. MILL.

A carload is understood to be the minimum established by railroad tariffs to the point of destination.

For less carload lots an extra of 15c per cwt. is charged, whether shipped L. C. L. or in pooled cars.

A pooled car is one which contains merchandise invoiced to *more than one* customer of the mill.

7—Colors

Basis prices are upon natural colors. Extra charges are made for colors, dependent upon costs. The manufacturer does not obligate himself to give other than a commercial match in color required by the customer, nor to furnish any colors guaranteed to be fast to light, unless otherwise specifically agreed upon. The minimum run in special colors is not less than 5 tons.

8—Cutting and Finishing Charges for Sheets in Standard Wrapping Paper Sizes

150 sq. in. and larger 25c percwt. over the price in rolls.

Under 150 sq. in. to 72 sq. in. 50c per cwt. over the price in rolls.

Under 72 sq. in. to 36 sq. in. 75c per cwt. over the price in rolls.

9—Cutting Charges for Rolls

Rolls 9" diam. or greater	None
Rolls 6" width or greater	None
Rolls 6" diam. and less than 9" diam	25c per cwt.
Rolls 4" diam, and less than 6" diam.	50c per cwt.
Rolls 2" diam. and less than 4" diam.	75c per cwt.
Rolls 4" width and less than 6" width	25c per cwt.
Rolls 2" width and less than 4" width	50c per cwt.
Rolls 1" width and less than 2" width	75c per cwt.

10—Packing Charges

Skeleton Frames	25c per cwt.
Solid Cases	50c per cwt.

(No case for less than $2.00)

11—Special Export Charges

An additional charge for packing for export according to customer's requirements is made on basis of cost.

(The foregoing addition to basis price for weights lighter than basis, extra for less than carload lots, colors, cutting and finishing charges for sheets in standard sizes, cutting charges for rolls and packing charges are made to cover the additional cost of such services and are based on cost data available.)

12—Terms of Acceptance

Orders are accepted subject to delays due to strikes, accidents, fires, or other causes beyond the control of the manufacturer.

Orders from dealers are accepted only when accompanied by specifications giving quantities, sizes, weights, and count, with a date for shipment not beyond 45 days from date of the order, unless for special reasons otherwise specifically provided in the acceptance. Changes in specifications are followed if provided for in the order as accepted and if stock has not been made.

Orders are not subject to cancellation or changes after acceptance without written consent.

Orders from converters are accepted only for a definite tonnage and over a definitely stated period.

In the case of sales f.o.b. Mill, whether with or without freight allowance, claims for loss or damage in transit are required to be made by the purchaser against the transportation lines.

13—Claims

Claims for defective paper, if any, are required to be made promptly on discovery and all such paper set aside for examination by the mill. No claim of any kind is considered unless made within 30 days after delivery.

Experience has shown that exceptional cases occasionally arise where the fault is clearly with the mill and where an absolutely literal enforcement of Custom No. 13 would work injustice and hardship to the merchants. It is, therefore, understood that mills will enforce the spirit of this Custom, deciding exceptional cases upon their merits and according to the rules of equity.

14—Terms of Sale

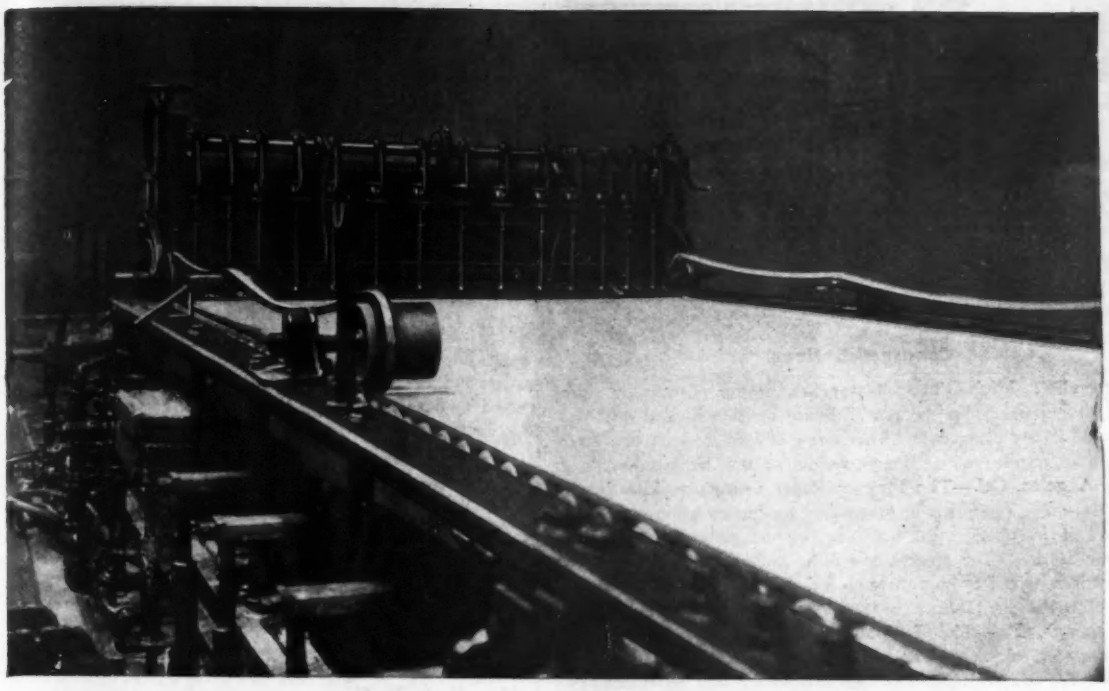
Terms are F. O. B. Mill, Net Cash 31 Days from date of invoice, or 2 per cent discount if cash is paid within 30 Days from date of invoice.

Algonquin Corp. Completing Sulphite Plant

[FROM OUR REGULAR CORRESPONDENT]

OGDENSBURG, N. Y., August 30, 1926.—The new sulphite pulp mill which is being built at the Algonquin Paper Corporation plant is rapidly nearing completion. It is expected that it will be turning out pulp by late fall.

It is understood that the pulp which will be turned out will be of the very highest grade and that it will be manufactured so that it will find a market for making Rayon silk which uses pulp wood. The pulp which goes into the silk manufacture must be absolutely white and of the very highest grade. It is hoped to conform to these specifications and that the silk market will be sought.



Why Paper Manufacturers Use The Voith Stock Inlet

The advantages that proved the Voith Inlet to be practical for feeding stock onto the wire of the paper machine are the points that are putting the Inlet across in plants all over the country and that are resulting in re-orders which continually come in. They may be summed up as follows:

1. **Helps to eliminate foam and lump spots and assures a more perfect formation.**
2. **Makes a sheet of uniform thickness.**
3. **Makes it possible to speed up machine and increase production when ample drying capacity is available.**
4. **The absence of the long apron and slices reduces wear on the wire thus lengthening its life.**
5. **The final result is better paper at a lower cost.**

A letter will bring you complete information about the Voith High Pressure Stock Inlet.

VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Avenue

Some Mills That Are Standardizing on Voith Inlets

Kimberly-Clark Company 13
Detroit Sulphite Pulp & Paper Co. 4
Champion Coated Paper Company 10
Eastern Manufacturing Company 3
Hinde & Dauch Paper Company 3
Marathon Paper Mills Company 3
Minnesota & Ontario Paper Company 4
Northwest Paper Company 4
Warren Manufacturing Company 6
Escanaba Paper Company 2
Rhinelander Paper Company 3
Mead Pulp & Paper Company...7
Menasha Printing & Carton Company 3
Nekoosa-Edwards Paper Company 6
Hollingsworth & Whitney Company 4
Hammermill Paper Co. 5
West Virginia Pulp & Paper Co. 3

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Watervliet, Mich.—The Watervliet Paper Company has plans for extensions in the power house at its mill and will begin work at any early date. Three new 600 hp. boilers, one 2000 hp. turbine engine and auxiliary equipment will be installed.

Los Angeles, Cal.—The Pioneer Paper Company, 5500 South Alameda street, has plans in prepartion for the erection of a new addition to its plant, and will ask bids on general contract in the near future. The structure will be one-story, brick 60 x 120 ft., and is reported to cost close to $45,000. It is proposed to install additional equipment. J. H. Plunkett is general manager.

Pittsburgh, Pa.—The Republic Bank Note Company, 3123 Forbes street, manufacturer of paper specialities, has plans in progress for the erection of a new four-story and basement addition, for which bids will soon be asked. It will be 90 x 140 ft., brick and steel, and is estimated to cost close to $300,000, in-cluding equipment.

Bastrop, La.—The International Paper Company has work in progress on additions to its local mill, used for the production of kraft papers, and purposes to install equipment to double, approximately, the present production. A list of machinery to be installed has been arranged. The project will be pushed to early completion. The estimated cost has not been announced.

Roxbury, Mass.—The John A. Devoto Paper Company is said to have plans under way for the early rebuilding of the portion of its local storage and distributing building destroyed by fire, August 20, with loss reported at close to $25,000.

Moss Point, Miss.—The Southern Paper Company is developing definite plans for a large reforesting project in Jackson County, and proposes to carry out the enterprise on a tract of about 50,000 acres. Production is being maintained on regular schedule at the mill, with employment of full quota of workers. It is expected to continue maximum output indefinitely. E. H. Mayo, general manager, will be in charge of the reforesting work.

Brooklyn, N. Y.—Fire, August 17, damaged a portion of the property of the Premier Paper Company, Bush Terminal Building No. 58, South Brooklyn, consisting primarily of stock. The amount of loss has not been annuonced.

Indianapolis, Ind.—The new plant of the Inland Box Corporation, for which a general contract recently was let to the William P. Jungclaus Company, 825 Massachusetts Avenue, will be located on a 5-acre tract of land at Morris and Dakota streets, purchased by the Morris Street Realty Company, a subsidiary organization. The factory will form the first unit of an entirely new works, with land permitting future expansion as may be required. The company is now occupying a portion of the No. 3 Plant of the Marmon Automobile Company, and will remove entirely from this location as soon as the new works are ready. The new structure will be one-story, 204 x 240 ft., with front portion of two-story height, to be used for executive and general offices of the company. The plant will be equipped with latest improved machinery for the manufacture of corrugated paper and fibre packing and shipping containers, and it is expected to develop a large output. Facilities will be provided for the employment of about 500 operatives, as compared with a present working force of 250 persons. The company is operating with a capital of $200,000, and is headed by H. C. Krannert, formerly manager of the Sefton Manufacturing Company, Anderson, Ind.; George E. Bomberger is vice-president; and C. E. Behringer, secretary.

New York, N. Y.—Fire, August 19, damaged a portion of the property of Henry Fuchs & Sons, 213 Greene street, with loss consisting primarily of a quantity of paper board stock and other kindred material, in which the company deals. The exact amount of damage has not been announced.

New York, N. Y.—The American Bank Note Company, 70 Broad street, New York, has acquired adjoining property at 74 Broad street, consisting of a six-story building on site 34 x 100 ft., and will remodel and improve for extensions. The company manufacturers and deals in high grade paper specialties, and will use the new structure for a number of departments.

Nashville, Tenn.—The Standard Envelope Manufacturing Company, 1600 East Thirtieth street, Cleveland, Ohio, has leased space in a building at Ninth Avenue and Damonbreun street, totaling about 12,000 sq. ft. of floor area, and will establish a new branch plant at this location. A list of machinery to be installed will be arranged at an early date. It is purposed to perfect the equipment installation by the first of October, and to begin production around that time. The new branch will be in charge of Gerald Allanson.

Grand Falls, N. B.—The Saint John Power Company, a subsidiary of the International Paper Company, 100 East Forty-second Street, New York, has awarded a general contract to the Dominion Construction Company, Ltd., Keefer Building, Montreal, Que., for the erection of its proposed hydroelectric power plant on the St. John River near Grand Falls. The work will consist of power dam, tunnel and main power house, and is reported to cost in excess of $1,500,000, for initial installation.

New Hampshire, B. C.—The Canadian Rayon Pulp Company, Ltd., has broken ground for the construction of its proposed new chemical pulp mill. The plant will be located on a 35-acre tract on Poplar Island, and will consist of a number of units, including main pulp mill, sawmill, power house, machine shop and miscellaneous buildings. The pulp division will be equipped for an initial output of about 100 tons of bleached pulp per day. The entire project is expected to cost close to $2,850,000. It is said that the plant is arranging for a complete 24-hour working schedule under its maximum schedule. The company was organized recently to carry out the project, and is capitalized at $2,850,000.

New Companies

Harrisburg, Pa.—The Cahill Carton Company has been incorporated with nominal capital of $5,000, to manufacture and

BLEACHED and UNBLEACHED
SULPHITES
KRAFT PULPS
GROUND WOOD
NORRONA
PULP STONES

PERKINS-GOODWIN CO.
33 WEST 42nd STREET
NEW YORK

PAPER
PRINTING PAPER
of
EVERY DESCRIPTION

deal in paper boxes, cartons and other containers. The incorporators are Clarence A. Cahill, Berne H. Evans and N. E. Hauser, Telegraph Building, Pittsburg. The last noted is treasurer and representative.

New York, N. Y.—The Merritt Lining Corporation has been incorporated with capital of $50,000, to manufacture lining papers, etc. The incorporators are J. R. Schloss and C. H. and N. G. Merritt. The company is represented by Neil, Purvin and Frenster, 291 Broadway, New York.

Philadelphia, Pa.—The Atlas Paper Company has filed notice of it organization to manufacture and deal in paper products. Jacob Zacker, 129 Vine street, Philadelphia, is head.

Hartland, Conn.—The Setag Paper Mills, Inc., has been incorporated with capital of $50,000, to manufacture and deal in paper specialties. The incorporators are Vernard W. Gates and Henry F. Koster, Pleasantville, N. Y.; and Chester A. Bentley, Winsted, Conn. The last noted is representative.

New York, N. Y.—Geiger and Mitchell, Inc., has been incorporated with capital of $50,000, to manufacture and deal in paper products. The incorporators are A. Mitchell E. Greenberger and A. Geiger. The company is represented by Louis Posenberg, 1440 Broadway, New York.

Good Outlook in Miami Valley

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio., September 1, 1926.—Paper concerns generally report prospects for a vigorous fall trade are good. Naturally, the paper manufacturers and machinery men have witnessed the usual slow trade during the mid-summer but with the approach of fall, affairs are looking up. A greater demand for the better grades of papers is anticipated.

This will aid virtually every line of business in the Miami Valley, the only exception being news print, which, of course, is not manufactured here to any extent.

In a general way, business reports are more encouraging. Such large publishing firms as the Otterbein Press, representing one of the largest denominational organizations in the country, though not restricted to patronage from that source, report greater activity.

Large printing and advertising orders reflect confidence, which as experts agree, is half the battle in business. The mid-summer slump has not been as acute in the paper making centers as in former years. Some of the biggest mills have been running on good-sized orders, such as the Champion Coated Paper Company, the Aetna Paper Company and several in Middletown and Franklin.

The printing industry is classed as an accurate barometer of business in this section of the country, more so than steel or iron, and when the larger establishments report activity in that branch, it argues well for the entire business fabric.

Scarcity of Pulp Wood Labor

The season for peeling pulp wood is now over and about the same quantity was taken out as last year. The reason that a larger amount was not cut was owing to the scarcity of labor all summer in the pulp wood camps. The Thompson and Heyland Company, Toronto, who will this year, handle 125,000 cords of wood, have fourteen rossers, portable and stationary, operating at various points along the Canadian National Railways west of Cochrane. The machines are rossing about 140 cords daily and some seventy cords are being shipped each day to points in Ontario and neighboring states over the Border. Prices prevailing this season are as follows: North of North Bay, Ont., peeled spruce and balsam, $8 and $10 per cord; south of North Bay, $10.50 to $11; rossed spruce in the north $10 to $11; poplar in the north $5 to $6.50; in the southern parts of Ontario $8 to $9, according to freight rates and availability.

Mohawk Papermakers Win Suit Against Henry Ford

COHOES, N. Y., August 30, 1926.—Justice Christopher J. Hefferman last week handed down a decision in the Supreme Court at Ballston Spa favorable to the Mohawk Papermakers, Inc., and others in their action against Henry Ford & Son, Inc. The Mohawk Papermakers Inc., operates plants in this city and Waterford, the Waterford plant being operated by water power secured from King's canal. In 1923 Henry Ford & Son, Inc., who own and maintain a large plant opposite the federal dam in Green Island erected flashboards on the top of the dam causing the river to rise, thus backing the water into the wheel pits of the Mohawk Papermakers plant, and other industrial plants along King's canal.

The papermaking concern contended that this high water destroyed their water power and early in 1924 the Mohawk Papermakers, Inc., and three other concerns brought an action against Henry Ford & Son, Inc., to force the removal of the flashboards. After a hearing before Supreme Court Justice Newton J. Herrick the Waterford concern were granted a temporary injunction restraining the Ford Company from maintaining the flashboards which the automobile manufacturer claimed were erected with the consent of the federal government.

Justice Hefferman in his decision directs that a judgment be entered permanently enjoining the maintenance of these flashboards and the ascertaining of damages sustained by the Mohawk Papermakers and the other King's canal mills while the boards were maintained during the summer of 1925. The court holds that the Waterford mills are entitled to have their water power free from interference and that these flashboards do diminish the power available for manufacturing purposes on King's canal.

The claim of the Ford Company that the permission to maintain these structures given by the Federal Water Power Commission relieved it from any liability was held by the court to be unfounded.

The flashboard erected by the Ford Company were carried away during a period of high water several months ago and Judge Hefferman's decision will prevent their replacement.

This action was one of the most interesting as well as important in which local manufacturing concerns have been involved for a number of years, the question at issue being regarded as rather a novel one. The action was tried before Judge Hefferman in Ballston Spa last spring and the taking of testimony required several days, witnesses from all sections of the country testifying. The Mohawk Papermakers, Inc., were represented in the proceedings by Thomas O'Conner and George E. O'Conner, of Waterford, and the Ford Company was represented by Attorneys Whalen, Murphy, McNamee & Crable, of Albany.

James McNutt Dies

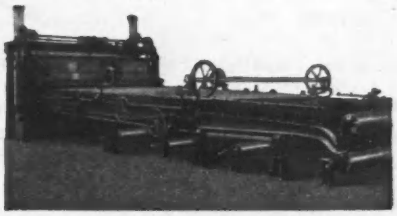
[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., August 23, 1926.—Following a six weeks' illness from a complicated malady, James McNutt of the firm of Raymond & McNutt passed away at his home in this city last Sunday. Mr. McNutt with Leonard Raymond founded the firm of Raymond & McNutt, dealers in fine papers and specialists in greeting card stocks and announcements, about 9 years ago beginning their career in the Philadelphia paper trade on Walnut street near 9th street with a specialized business and gradually extending to the complete line of fine and printing papers.

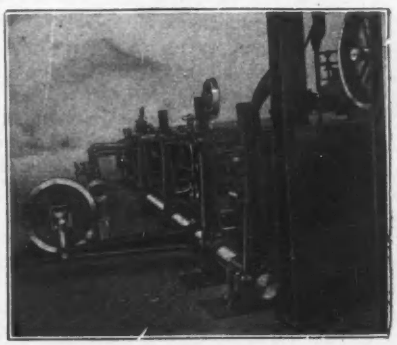
Before joining the paper trade he was engaged in the bookbinding industry as gilder with a shop of his own in this city. At the time of his passing he was in his 55th year of age. He was a member of the F. and A. M. and the Knights of the Round Table and actively identified with the Olivet Presbyterian Church as Superintendent of the Sunday School. Funeral services were held at his home 6161 Webster street and was attended by associates in the local trade and out of town mills representatives identified with the Raymond & McNutt Company.

Utilize your Unproductive Hours

THE super-performance of the NEW BELOIT would be impossible were it not for the utmost care given to every detail of its manufacture. Each exacting machine part is precision built, with all the skill and care that modern science and tools can produce.



The selection of the special alloy steels and their formation into the finished product insures to every "Beloit" user all that human ingenuity, care and skill can conceive.



We believe in accuracy, our organization is always kept intact, our loyal workers, 95% of whom own their own homes, are as much dedicated to the task of perfection as the executives themselves.

The Removable, Adjustable and Shakeable BELOIT FOURDRINIER is a precision product as well as a revolutionary labor and time saver. Twenty-three papermakers have proved it by actual operation.

It will pay you to get all the facts. Write for Bulletin No. 9.

Smooth Running

"I had the pleasure of seeing your machine in operation. Words fail me in which to express my admiration at such a smooth-running machine."

The NEW BELOIT FOURDRINIER

FOUNDED 1858 BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS

BELOIT IRON WORKS **Beloit, Wisconsin, U. S. A.**

New York Trade Jottings

T. J. Howland, of the Interior Pulp and Paper Company, Nelson, British Columbia, was in New York last week.

* * *

Sales billed by the Westinghouse Electric Manufacturing Company for the four months ended July 31 totaled $61,186,127, an increase of $10,135,114 over the corresponding period in 1925.

* * *

Walter Leiser, of the house of Otto Leiser, paper merchant, of Amsterdam and Hamburg, who has been studying the paper industry in this country for some time, is in New York, and is planning to make permanent connections on this side.

* * *

The United States Trucking Corporation, subsidiary of the United States Distributing Corporation, has purchased from the Perkins-Goodwin Company, paper merchants, its trucking and warehouse business formerly operated as a subsidiary of the Perkins-Goodwin Company, under the name of the Emergency Trucking Corporation. This purchase will add one more paper warehouse to the chain of the Independent Warehouses, Inc., as well as twenty motor trucks to the fleet of the United States Trucking Corporation.

* * *

Directors of the Texas Gulf Sulphur Company have declared a quarterly dividend of $3 a share, payable September 15 to stock of record September 7. In the two preceding quarters dividends of $2.50 each were paid. The stockholders will vote September 9 on a change in capitalization from 638,000 shares of $10 par to 2,540,000 shares no par value, with a distribution of new shares on the basis of four for one.

* * *

Kuhn, Loeb & Co. and the Chase Securities Corporation, have purchased from the Westinghouse Electric and Manufacturing Company $30,000,000 of its twenty-year 5 per cent gold bonds, due September 1, 1946, which bonds are being offered for subscription, subject to allotment, at 99 per cent and accrued interest. The purpose of this issue is to provide funds to pay $30,000,000 of the company's 7 per cent gold bonds, which are to be called for redemption on November 1 next, thus reducing the company's fixed charges. The bonds will be free of the 4 mills tax of the State of Pennsylvania, and the company undertakes to pay income tax deductible at the source not to exceed 2 per cent. The aggregate income of the company and its proprietary companies, for the fiscal year ended March 31, 1926, after deductions for depreciation. Federal and other taxes, etc., applicable to interest charges, amounted to $16,590,224, or more than six and one-half times such charges, which, for that fiscal year, amounted to $2,468,224. Such income for the four months ended July 31, 1926, after like deductions, amounted to $6,387,467, while interest charges for that period amounted to $820,445.

Notes of the Superintendents Associations

Frank A. Johnson, Superintendent of the Diana Paper Company, Harrisville, N. Y., has been appointed secretary-treasurer of the Northern New York Division. Mr. Johnson's appointment was due to the resignation of Fred J. Rooney, the duties of President requiring so much of Mr. Rooney's time he could not carry on as secretary of Northern New York Division.

Carl Magnus, of the Standard Paper Manufacturing Company, Richmond, Va., has been appointed chairman of the Practical Problems Committee. It is the hope and purpose of this committee to be of considerable value to the industry at large. Mr. Magnus has a very extensive plan of organization in mind for this committee and its work.

The Northeastern Division has a meeting scheduled for October 2 at Lincoln, N. H.

William Pierce Johnson Dead

PORTLAND, Ore., August 27, 1926.—Louis Bloch, of San Francisco, president of the Crown-Willamette Paper Company, received a cable from Paris, August 24 announcing the death in that city of William Pierce Johnson, chairman of the board of directors of the company.

Mr. Johnson went abroad in March of this year for a rest accompanied by his physician. He was 67 years old and had lived in California for 47 years. He was a pioneer in the paper industry in the west, having been connected first with the California Paper Mills in Stockton and later founding the Willamette Pulp and Paper Company at Oregon City, Oregon, in 1890.

Mr. Johnson was a graduate of Dartmouth College and the Boston Institute of Technology. He leaves his widow Mrs. Florence Johnson and his daughter Mrs. Maxwell Milton.

When the Willamette Pulp and Paper Company was consolidated with the Crown Pulp and Paper Company, Mr. Johnson became president of the corporation and remained in that capacity until 1923 when he retired, although still retaining his position as chairman of the board.

July Production of Box Boards

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., September 1, 1926.—July production of boxboard, based on reports to the Department of Commerce by 89 firms operating 111 plants, was 111.5 per cent of capacity, as compared with 110.8 per cent in June and 95.3 per cent in July, 1925. In the following table, which presents a detailed statement of the operations of boxboard mills, the capacity data vary according to the normal number of working days in each month, Saturdays, Sundays, and holidays being excluded since the five-day week was adopted by about 80 per cent of the mills.

Boxboard

Year and Month	Operation: Inch hours: Capacity	Operation: Inch hours: Operated	Operation: Per cent of Capacity	Production: Tons: Capacity	Production: Tons: Output	Production: Per cent of Capacity	Orders received (Tons)	Unfilled Orders (end of month) (Tons)
1925								
January	7,960,302	8,388,897	105.4	185,619	199,633	107.5	199,649	112,911
February	7,600,440	7,550,968	99.3	177,320	177,292	100.5	162,724	100,403
March	8,360,484	7,569,995	90.5	197,186	179,067	91.0	169,924	90,062
April	8,360,484	7,654,378	91.6	197,186	185,866	94.3	169,914	79,127
May	7,980,462	7,111,776	89.1	188,223	163,956	87.1	175,246	83,415
June	8,360,484	7,983,150	95.5	197,186	190,310	96.5	193,564	92,022
July	8,740,506	8,272,036	94.6	204,149	196,522	95.3	216,013	111,919
Total (7 mo.)	57,363,162	54,531,200	95.1	1,346,869	1,292,646	96.0	1,287,034	.....
1926								
January	7,600,440	*7,816,834	*102.8	179,260	*192,436	*107.4	*207,658	118,531
February	7,600,440	*7,669,845	*100.9	179,260	*191,808	*107.0	*178,099	104,578
March	8,740,506	*8,828,149	*101.0	206,149	*220,495	*107.0	*214,724	102,362
April	8,360,484	*8,455,219	*101.0	197,186	*207,623	*105.3	*200,154	89,622
May	7,600,440	*8,269,046	*108.8	179,260	*203,937	*113.8	*198,154	83,293
June	8,360,484	*9,036,327	*108.1	197,230	*218,555	*110.8	*238,836	109,437
July	7,980,462	8,607,891	107.9	188,265	209,961	111.5	211,907	122,667
Total (7 mo.)	56,243,256	58,683,311	104.3	1,326,610	1,444,815	108.9	1,449,532	.....

Year and Month	Shipments of boxboard (Tons)	Stocks of boxboard, end of month (Tons)	Consumption of waste paper (Tons): Capacity	Consumption of waste paper (Tons): Consumed	Per cent of Capacity	Stocks of waste paper, end of month (Tons): On hand	Stocks of waste paper, end of month (Tons): In transit and unshipped purchases
1925							
January	195,501	52,466	175,938	193,285	109.9	172,382	53,820
February	176,101	53,960	167,910	170,023	101.3	172,456	43,745
March	180,418	51,835	184,778	170,363	92.2	176,035	36,147
April	179,772	57,212	184,778	170,487	92.3	186,530	32,593
May	168,353	53,327	176,379	159,095	90.2	174,726	38,815
June	184,928	59,452	184,778	179,953	97.0	166,467	39,118
July	190,667	64,600	193,177	184,295	95.4	160,099	46,311
Total (7 mos.)	1,275,740	.....	1,267,738	1,227,501	96.8	.....	.....
1926							
January	*192,990	*47,745	167,980	*182,733	*108.8	*168,479	44,477
February	*190,901	*48,468	167,980	*182,298	*108.5	*162,381	53,985
March	*216,833	*52,041	193,177	*208,201	*107.8	*151,176	42,971
April	*208,789	*51,447	184,778	*198,161	*107.2	*145,772	50,803
May	*204,617	*52,060	167,980	*188,691	*112.3	*136,895	44,802
June	*212,741	*57,416	184,778	*208,728	*113.0	*136,380	*57,820
July	209,538	59,086	176,379	200,927	113.9	147,523	60,391
Total (7 mos.)	1,436,409	.....	1,243,052	1,369,739	110.2	.....	.....

* Revised.

Cable Conveyor handling Pulpwood to mill.

Pulpwood Stackers designed and built to suit various conditions and capacities.

-in the Manufacturing Process of the Pulp and Paper Industry

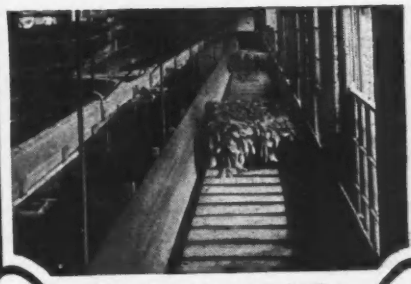
TO find the most simple, economical and effective methods of handling materials in pulp and paper mills—is a goal toward which Jeffrey Engineers have been striving for a half century.

Today—a list of the leading concerns who have profited by the installation of Jeffrey Labor-Saving Equipment to keep pace with world demands, constitutes a "blue book" of the industry.

Whatever the material to be handled, or the conditions to be met, you can put the problem up to Jeffrey Engineers with the confidence that the equipment recommended will exactly fit the requirements.

Belt Conveyors for handling Pulp Laps, Chips, etc.

Chain Conveyor handling Logs to mill.



Wood Apron Conveyor for handling Bundles of Rags, Paper Rolls, etc.

The Jeffrey Manufacturing Company

931-99 North Fourth St., Columbus, Ohio

New York	Pittsburgh	Cleveland	Milwaukee	Los Angeles
Buffalo	Scranton, Pa.	Charleston, W. Va.	St. Louis	Birmingham
Rochester, N. Y.	Boston	Chicago	Denver	Charlotte, N. C.
Philadelphia	Cincinnati	Detroit	Salt Lake City	Montreal

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LABOR AND PRODUCTION

The great saving in the amount of human energy necessary to turn out a given quantity of manufacturing production, which has made itself felt particularly during the last few years, bids fair to be the most significant industrial-economic development of the twentieth century, according to the National Industrial Conference Board, 247 Park Avenue, New York. So pronounced has been the change in the quantitative relationship between labor and production that, in the light of an analysis of this phase of our recent industrial history contained in the Board's recently completed report on "Wages in the United States", it heralds far-reaching betterment not only in our economic affairs, but affords a foundation for wide social and cultural advance as well.

It has been generally accepted that employment fluctuates with production, on the assumption that, barring revolutionary changes in methods, a given labor force is necessary to produce a certain output. This was substantially true, according to the Board's study of employment and production, from 1900 to 1914, but during the past decade employment in manufacturing has to an increasing degree failed to keep pace with the increase in output, and this tendency has become particularly noticeable since the year 1921. Although the volume of manufacturing output from 1921 to 1925 increased about 62 percent, employment during the same period, according to the Conference Board's index increased only 14.28 percent. But inasmuch as employment indexes are computed on data from a number of selected plants, the Board cautions that it does not accurately measure total employment, and hence is not strictly comparable with fluctuations in total volume of production as indicated by the production index cited. Moreover, employment indexes being based on payroll data, they do not take into account part-time work, nor over-time work, indicating merely the number of employees on the payroll. However, the difference of fluctuation between volume of production and employment since 1921 is so marked, the Board declares, and substantiated to such an extent by the experience in individual plants, that the conclusion of a great saving in human energy in manufacturing production cannot be escaped. As the change in relative volume of employment is measured in proportion to individual plant capacity, the Board emphasizes, it does not indicate increasing unemployment. It is to be interpreted rather as the opening up of opportunities to work in other fields, to the degree that the machine relieves men and women from having to earn their living with manual labor.

Significant in this connection, the Board points out, is the fact that the general price level during the past five years has been declining along with greater productive activity, a symptom contrary to general previous experience, and making possible higher living standards.

While a greater output per worker employed has been made possible by modern, highly organized, high-powered and more efficient industry, it has also therewith raised the earning capacity of the individual workers. Actual wages paid per worker in all manufacturing industries combined according to the Board's wage study in 1925 averaged about 114 percent more than in 1914, and the "real" wage, that is the purchasing power of factory workers' weekly earnings, taking into account the higher price level, in 1925 averaged 28 percent more than in 1914. The tenet recently adopted by the American Federation of Labor, that the wage earner should participate in the returns from increased efficiency in the operation of the industry, in effect has been realized during the past decade according to the Board's analysis.

The saving in human energy in manufacturing during the last few years has been sufficiently great the Board declares as to offset to a large degree the effect of immigration restriction on labor supply. For our annual net gain in population from immigration decreased by about two-thirds from 1921 to 1925, while manufacturing output during the same period increased more than 60 percent, without at any time occasioning a labor shortage. Moreover, during the two years that the two percent quota act has been in effect, the largest loss in immigration has been in Common labor, which actually emigrated in larger numbers than it entered the United States. In other words, the machine is supplanting unskilled alien labor in our industry.

SAFETY CODE FOR PAPER MILLS

The approval of several important industrial safety codes is announced by the American Engineering Standards Committee. These form part of a comprehensive group of sixty such codes which during the last seven years have engaged the attention, not only of the committee, but of more than a hundred national organizations which have been officially cooperating in the development of this safety code program. More than a third of the group of sixty codes have now been completed and approved.

For several years the National Fire Protection Association has been working on the preparation of regulations for the prevention of fire and explosions in dusty industries. Some time ago this work was brought under the procedure of the American Engineering Standards Committee, the work being broadened and the committee being enlarged through increased representation into a regular sectional committee, under the joint sponsorship of the Fire Protection Association and the U. S. Department of Agriculture.

Special codes for the prevention of explosions in pulverized fuel systems, in terminal grain elevators, in flour and feed mills, in sugar mills, in cocoa mills, and in starch factories, were

reviewed by the enlarged sectional committee, and have now been approved by the sponsors and by the A. E. S. C. This included revisions of some of the special codes.

While catastrophies in the dusty industries from this hazard are much less frequent than in coal mines, very serious accidents do occur from time to time.

It is confidently believed that as the use of these codes is extended to cover all of the industries affected, such disasters will be practically eliminated.

The American Engineering Standards Committee was also approved as a "Tentative American Standard" a safety code for paper and pulp mills.

The work on this code was started in 1920. Great interest in the work has been taken by the companies operating mills both in the United States and Canada. The code comprises eight parts dealing respectively with: yards; preparing pulp wood; preparing rag and old paper; acid making; chemical processes of making pulp; preparing pulp for paper machines, machine room and finishing room. It also contains an appendix on overhead structures and equipment, bulletin boards, loose clothing, belts, and use and care of tools.

The National Safety Council acted as the sponsor of the code and R. M. Altman of the Marathon Paper Mills Company, Rothschild, Wis., was the chairman of the sectional committee entrusted with the work of formulating the code. Among the cooperating bodies having representatives on the sectional committee were: The American Paper and Pulp Association, American Society of Mechanical Engineers, Department of Labor and Industry of Massachusetts, Industrial Commission of Wisconsin, National Association of Mutual Casualty Companies, National Workmen's Compensation Service Bureau, New Jersey Department of Labor, Ohio Manufacturers' Association, Ohio Society of Safety Engineers, Ontario Pulp and Paper Makers' Safety Association, Pennsylvania Industrial Board, U. S. Bureau of Standards and U. S. Public Health Service.

Mill and Merchants to Confer at Holyoke

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., August 31, 1926.—The fourth annual "mill-and-merchant" conference of the Crocker McElwain and Chemical Paper Manufacturing Companies will be held at the Hotel Nonotuck, September 20 and 21 when the new brands of paper "Action Bond" and "Half Tone Letter" will figure prominently. The first named is especially designed for rapid work in correspondence and the last has been gotten out to meet the demand for a satisfactory paper for a four page illustrated letter. Both lines are said to be meeting with a first class reception by the trade.

The conference is planned to be a big family affair with mill representatives sitting down at round table conferences with the merchants that bear the major responsibilities, in selling the mill's products to the great American public.

Clifton A. Crocker, president, will welcome the visitors and sound the keynote of the conference at the opening session Joseph S. Holmes will follow with a detailed talk on the existing merchandising situation. Monday afternoon and Tuesday morning will be devoted to departmental meetings, Tuesday golfers will go to the Longmeadow Golf club and others to Riverside Park for a clambake. Others who will have an important part in the program are Gordon Blanchard, Thomas W. Harrington and H. E. Linguist.

Canada Pulp and Paper Exports Gain

The regular report issued by the Canadian Pulp and Paper Association states that the exports of pulp and paper from Canada in the month of July were valued at $15,053,695. This was an increase of $366,570 over the previous month and of $3,144,276 over the total for July, 1925.

Wood-pulp exports in July were valued at $4,510,586 and exports of paper at $10,543,109, as compared with $4,690,574 and $9,996,551, respectively, for the month of June.

Details for the various grades of pulp and paper are as follows:

	July, 1926		July, 1925	
	Tons	$	Tons	$
PULP:				
Mechanical	41,749	$1,299,903	27,530	$ 855,380
Sulphite Bleached	16,617	1,308,314	13,250	1,013,213
Sulphite Unbleached	18,744	1,075,721	21,077	1,162,499
Sulphate	13,209	826,648	12,456	759,861
	90,319	4,510,586	74,313	3,790,953
PAPER:				
News print	150,778	9,935,328	107,767	7,577,908
Wrapping	1,955	231,546	1,206	156,370
Book (cwts.)	3,451	34,646	4,964	51,205
Writing (cwts.)	3,174	23,177	1,174	8,491
All Other	....	318,412	....	325,492
	....	10,543,109	....	8,118,466

For the first seven months of the year, the exports of pulp and paper were valued at $97,920,690 compared with a total of $85,-233,249 for the corresponding months of 1925; an increase for the current year of $12,687,441, or nearly 15 per cent.

Wood pulp exports for the seven months period were valued at $29,623,188 and exports of paper at $68,297,502 with corresponding figures for last year $25,516,534 and $59,716,715, respectively.

Details for the seven months are as follows:

	7 mos., 1926		7 mos., 1925	
	Tons	$	Tons	$
PULP:				
Mechanical	195,833	$5,833,749	163,180	$4,778,011
Sulphite Bleached	116,188	9,096,787	106,123	7,865,849
Sulphite Unbleached	152,101	8,652,617	145,569	7,739,058
Sulphate	96,773	6,040,035	83,545	5,133,616
	560,895	29,623,188	498,417	25,516,534
PAPER:				
News print	968,881	63,866,812	784,990	55,319,290
Wrapping	11,651	1,459,392	12,055	1,645,615
Book (cwts.)	28,272	250,646	21,074	199,027
Writing (cwts.)	12,938	96,140	6,793	57,992
All Other	....	2,624,512	....	2,494,791
		68,297,502		59,716,715

Exports of wood pulp in the seven months period showed an increase over the corresponding months in 1925 of 62,478 tons, or nearly 13 per cent.

News print exports show the greatest gain and reflect the increased production by Canadian mills since the beginning of the year. Compared with the first seven months of 1925 there has been an increase in news print exports of 183,891 tons, or over 23 per cent. It is interesting to note that for the year up to date the exports of news print were greater than in the full year of 1922 when the total for 12 months was 959,914 tons.

Pulpwood exports have been somewhat smaller this year than in 1925. For the first seven months of the year there were exported 797,631 cords of pulpwood valued at $7,754,977, compared with 919,108 cords valued at $8,972,358 exported in corresponding months of 1925.

Bryant Co. Lets Contract for Ventilating

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., September 1, 1926.—The Bryant Paper Company has awarded to the Kalamazoo Blow Pipe Company the contract for the installation of a complete ventilating system for the 164 inch Fourdrinier machine, which is to be installed in the new machine room, now in course of erection.

There will be the usual large hood covering the entire drier section of the machine, direct connected to eight gravity ventilators of the largest size. In addition provisions will also be made for calender and motor cooling.

Back of the Product

The widespread acceptance and use of Appleton Felts and Jackets by the leading paper mills of America is a testimonial to Appleton Quality and Service.

Each Appleton Felt is a masterpiece. The knowledge and experience gained in 35 years of actual manufacture are passed on to the buyer in the form of a superior product.

We take pure virgin wool—the best obtainable. Master craftsmen weave this into exactly the size and design to fit YOUR requirements. There is no guesswork—no uncertainty.

Appleton Felts have built up a national reputation. To maintain that reputation, it is necessary that every felt bearing the Appleton trademark gives long and economical service—and satisfactory finish.

APPLETON WOOLEN MILLS
APPLETON WISCONSIN

Appleton
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Conducted by W.G. MacNAUGHTON, Secretary

Parchment Paper And Its Manufacture*

By Maurice De Keghel

Parchment, together with papyrus, was the forerunner of paper. It is stated that the skins of twelve hundred animals which had been offered in sacrifice were required for the Holy Writings of the Persians. The name "parchment" comes from the town of Pergamum, where, in the year 200 B.C., a manufactory was established for the preparation of goat and sheep skins for this purpose.

True parchment is made from sheep and goat skins which, after cleansing, are carefully dehaired and allowed to dry without tanning. Vellum is the finest grade of parchment, prepared with the skins of very young calves and kids or of still-born lambs.

The use and the method of preparation of parchment were introduced into Europe by the Greeks and Italians, and it was soon adopted in all the larger monasteries, where the monks themselves prepared the parchments which they illuminated so beautifully. It is from this period that we can reckon the evolution of ink writings, which ultimately led to the widespread adoption of paper as a medium for transmitting thought.

Parchment is no longer used for writing or printing, its place for this and several other purposes having advantageously been taken by an artificial product known as vegetable parchment, parchment paper, or parchmentized paper.

Vegetable parchment was invented in 1847 by Poumarède and Figuier. It is prepared by the action of sulphuric acid of definite concentration on cellulose. When ordinary waterleaf paper, for instance, is treated at 16° C. with sulphuric acid at a concentration of 60° Bé., the paper is converted, either superficially or throughout its whole thickness according to the length of time during which the acid is allowed to act, into a keratinous substance which makes the paper impermeable to water and to oils and fats. After immersion, even in boiling water, for a long time it does not soften or swell up and cannot be defibered. Owing to the transformation of the cellulose the paper acquires a great cohesion which renders it impermeable to liquids and to air, and these properties are not destroyed by prolonged immersion in water and subsequent drying.

The preparation of parchment paper is based on the power of sulphuric acid to convert pure cellulose into a gelatinous mass known as "amyloid." When this reaction is carried out on paper it takes place superficially forming a coating or film which covers the portions of the fibers which were not attacked by the acid. Subsequent action of sulphuric acid on amyloid converts it first into a gum-like substance, cellulo- or amylo-dextrine, and then into a sugar, cellulose. Amyloid is thus a transformation product of cellulose which binds the fibers together into a coherent mass, completely insoluble in water, and which appreciably changes their linear expansion and swelling power and increases their strength considerably.

If a strip of unsized paper is immersed for a few moments in 60° Bé. sulphuric acid, the cellulose of the fibers is partially converted into colloidal cellulose. After washing to eliminate the acid, the paper "sized" with this colloidal cellulose has become waterproof and much stronger. The resultant product is parchment paper.

Sulphuric acid at a concentration of 60° Bé. converts the cellulose of the paper into a colloid which can be dispersed in water, but which can be flocculated, that is, it can be precipitated from its solution by addition of an electrolyte. It is still amyloid. Concentrated sulphuric acid, at 66° Bé., can render colloidal cellulose insoluble in water. This fact also is made use of in the manufacture of parchment papers.

Amyloid can be prepared by treating one part of pure cotton with 30 parts of sulphuric acid. The cotton dissolves out rapidly, and in about a minute there is formed a gelatinous, highly consistent mass, which gradually becomes more fluid, acquiring a syrupy consistency in about 20 minutes. If water is added at this stage the amyloid separates out as white gelatinous flocks, in which all fibrous structure has been destroyed. If, on the other hand, the action of the acid on the amyloid is allowed to proceed, the amyloid is converted into dextrine, and then into cellobiose. This can be shown by adding the water only after eight to ten hours, when but very little amyloid will be precipitated out.

The behavior of amyloid towards acids and alkalies is very similar to that of vegetable fibers, from which, however, it is distinguished by its structureless mass. It can be differentiated from starch by the fact that the blue color imparted by iodine is removed by washing with pure water. When dispersed in sufficient water amyloid forms a glue-like, colloidal solution which, when spread out on glass and allowed to dry spontaneously, forms a thin, tough, transparent film. The film formed by applying such a solution on paper does not adhere to the latter and can easily be separated after drying. But if it is formed directly on the paper, as in the manufacture of parchment paper, amyloid adheres firmly to the fibers.

The fibers of parchment paper, each covered by a thin transparent membrane, are easily distinguished. Under the action of the acid the fibers are enclosed in a sheath of amyloid, as can easily be shown by staining with iodine. On immersing waterleaf paper in sulphuric acid at room temperature it first becomes covered with a gelatinous coating; but if it is allowed to remain long enough in the bath the acid penetrates into the mass, the fibers swell and ultimately the fiber structure is completely destroyed. If the paper is removed from the bath before the reaction has

* Translated from *Papyrus* vi, 498-501, 824-826 (1925); vii, 27-30 (1926), by A. Papineau-Couture.

proceeded so far and is immersed in an alkaline bath, the acid is neutralized and the hydrolyzed cellulose is converted to amyloid, which remains fixed on the fibers, and soluble sulphates, which are removed by washing with water.

The fibers are firmly held together through the action of the superficial gelatinous coating which, during drying, allows the water to pass out of the sheet, but does not allow the air which normally would replace the water to pass into the sheet. The membranous and transparent appearance of well prepared parchment papers is due exclusively to this phenomenon.

On impregnating with 60° Bé. sulphuric acid filter paper which was washed with hydrochloric and hydrofluoric acids to eliminate all inorganic matter, there is obtained a transparent, gelatinous mass, which retains its appearance for a long time. After proper washing in water and alcohol, to eliminate all traces of acid, and drying at a moderate temperature, this colloidal cellulose can be dispersed in water, giving a milky solution which can be filtered and from which no sediment separates out, even after several days, but which is affected by boiling. This solution is slightly dextro-rotatory (about 0.75°). It is precipitated by addition of small quantities of electrolytes, alcohol or strong mineral acids. When spread on a sheet of greased glass and allowed to dry it gives a brilliant translucid film, completely soluble in cold water. But if the film is immersed for a few seconds in 66° Bé. sulphuric acid, the colloidal cellulose becomes completely insoluble. The colloidal cellulose can be nitrated in exactly the same way as ordinary cellulose.

The colloidal properties of cellulose can explain most of the phenomena involved in the manufacture of parchment paper.

On boiling very thin sheets of parchment paper in water, it will be observed that a portion of the colloidal cellulose is dispersed in the water, while with thick sheets this does not take place. The difference is due to the fact that stronger acid is used in parchmentizing the thicker sheets, and though colloidal cellulose is formed in both cases, the stronger acid used in the second case renders the superficial coating insoluble.

Parchment paper can be considered as an ordinary paper from which all the air has been driven out and in which the pores have been filled with colloidal cellulose.

On parchmentizing, paper undergoes considerable modifications in its physical properties. Its strength increases about three to four fold, its specific gravity increases from 30 to 40 per cent, while the thickness is reduced by about 30 to 35 per cent. This would seem to show that as a result of the treatment the separate particles constituting the paper shrink closer together, giving the sheet greater homogeneity.

It is essential that the parchmentizing stock should contain no substances which could interfere in any way with the process, and it should be entirely free from any sizing or mineral fillers. The most suitable stock is one made from a long-fibered, all-rag furnish, but paper made from chemical wood or straw pulps can also be used. Sulphuric acid is the most generally used parchmentizing agent; but zinc chloride and hydrated copper oxide act in the same way, and they are used in certain cases, as we shall see further on.

Manufacture of Parchment Paper

In order to obtain even and uniform results, the operation must be carried out at a fixed temperature with acid of definite concentration. Parchmentizing plants generally operate with a 60° Bé. acid at a temperature below 10° C. The length of time during which the paper is allowed to remain in the acid is also of primary importance. It varies from 5 to 15 seconds according to the composition and thickness of the paper. As soon as the paper has been parchmentized further action of the acid must be prevented, either by thorough washing with water or by washing first with dilute alkali to neutralize the acid remaining in the sheet and then with plenty of fresh water. Drying is then carried out as described below.

TECHNICAL SECTION, PAGE 78

In order to obtain a strong, tough, close-grained parchment, it is essential that the modification of the cellulose fibers be superficial and it must not penetrate to any great depth. A porous stock should not be used, for, though it gives a waterproof parchment, the latter is lacking in strength. On the other hand, a thin all-rag paper which has been rather heavily pressed before treatment with acid gives such a strong parchment that it can be used as a substitute for leather for many purposes.

Parchmentizing is no longer carried out on sheets, but on rolls of waterleaf paper. As the latter is unwound it is passed under glass or lead rolls completely immersed in the acid, which is contained in a lead or earthenware tank. On leaving the bath the web is pressed between two glass rolls to remove the excess of acid. It is then passed through a number of tanks in which water is circulated continuously. The last traces of acid are removed by passing through a bath of dilute caustic soda, or preferably of dilute ammonia water. This bath is merely used as an added precaution, and the parchmentized paper should be washed as thoroughly as possible before it reaches the neutralizer, so as to keep down the consumption of alkali to a minimum.

After passing through the neutralizing bath, the parchment is again washed in two or three water tanks, and is then passed through a felt-jacketed press to remove the excess of water and around a steam-heated roll.

Parchment paper should be dried under a strong transverse tension. Owing to its increased cohesion it has a much greater tendency to crepe and curl than has ordinary paper. This would result in a very uneven surface and is prevented by strong tension.

When an exceptionally thick and strong product is required, two separate webs are passed through the acid bath simultaneously, but not in contact with each other, and they are pressed together as they emerge from the acid before passing into the washing tanks. The sheets thus treated adhere together so strongly that they cannot be taken apart. The subsequent operations are carried out in the same way as for ordinary parchment.

In order to obtain good and uniform parchmentizing, it is essential to take a 60° Bé. acid. Weaker acid does not bring about the required transformation of the cellulose, while stronger acid makes the parchment brittle. The proper strength of acid may be obtained by diluting two volumes of 66° Bé. acid with one volume of water. A large amount of heat is liberated, which can make the mixture boil, and the operation must be carried out carefully, always adding the acid to the water, and never the water to the acid. After cooling the mixture to 9 or 10° C. its specific gravity should be determined by means of a hydrometer, and if it does not fall between 59.5 and 60.5° Bé. it should be adjusted to this density by addition of acid or of water as the case may be.

Cotton and flax fibers are not transformed at the same rate, and in parchment made from mixed cotton and linen rags the practically unchanged flax fibers can be readily distinguished from the broken-down transparent cotton fibers which have been agglutinated into a formless, almost homogeneous mass. All-cotton paper is more easily parchmentized and imitates more perfectly the characteristic appearance of true parchment, but after drying it is more brittle. By judicious selection of the composition of the parchmentizing stock either a hard or soft product may be obtained.

All addition of mineral fillers should be avoided, as it would interfere with parchmentizing. Papers made from unbleached pulps are also difficult to parchmentize because the residual incrustants present on the fibers are not readily acted upon by the acid, and for the same reason groundwood is very unsatisfactory for this purpose.

The raw stock should not be too thick, and when placed on the surface of the acid it should be readily penetrated by the latter, otherwise it would give a product consisting essentially of two layers of parchment paper separated by a layer of unchanged paper. A very heavily calendered paper behaves similarly.

It is important to keep the acid bath at a constant strength. As sulphuric acid is extremely hygroscopic it readily takes up moisture from the air, and owing to the proximity of the washing tanks the atmosphere in the neighborhood of the parchmentizing bath generally has a high relative humidity. Moreover, the raw stock itself also contains quite an appreciable amount of moisture, which is rapidly absorbed by the acid. This can be overcome, however, by drying the paper before passing it through the acid.

The temperature of the acid should not be allowed to rise above 10° C. Parchmentizing can be carried out at higher temperatures, up to 20° C., but the product obtained at this temperature is much too soft. Moreover, at this temperature the operation must be carried out very rapidly. The temperature of the bath can rise spontaneously through absorption of moisture from the paper or from the air, or it may rise owing to too high a temperature in the parchmentizing plant.

Both the temperature and concentration of the acid bath must be watched very closely so as to keep them within the proper limits.

The time required for parchmentizing should vary between 5 and 15 seconds. With a treatment of less than 5 seconds it is practically impossible to turn out a marketable product. The time increases with the closeness and thickness of the raw stock, but in no case should it exceed 15 seconds, for fear of causing excessive loss during washing. With a given paper, the transparency of the parchment increases with the time of treatment.

One of the prerequisites for proper operation is a paper of uniform thickness. A small piece of the paper is tested out to see the length of time required to obtain the desired modification of the cellulose throughout the whole thickness of the sheet without causing undue losses in washing. With a little care and experience these tests are very easy to carry out.

Parchment paper can never be allowed to dry spontaneously, as it would crepe and curl to such an extent as to make it unsaleable. After leaving the last washing tank and passing through a felt-jacketed press and through a glazing calender, it is advisable to pass it around a steam-heated, polished copper roll and to press it against the surface of the roll to give a smooth, glazed finish. On leaving the drying rolls it is cut up into sheets.

The apparatus for passing the paper through the acid bath is generally designed to operate at a fixed speed. As it may be necessary for some reason or other to increase or decrease the time of the acid treatment, it is advisable to arrange the acid tank so that the travel of the parchment before it reaches the first washing tank may be either shortened or lengthened, thereby changing the time of contact with the acid without having to alter the speed of the paper.

Parchmentizing with Zinc Chloride

Concentrated zinc chloride solution can be used instead of sulphuric acid, but as its action is much less drastic than that of the latter it is used as concentrated as possible and at a higher temperature than the acid. Commercial zinc chloride solution is generally used, after neutralizing with zinc oxide. The solution when cold should be of syrupy consistency and have a specific gravity of 2.1.

The waterleaf paper is immersed in the solution until it is completely impregnated, and the excess solution is removed by passing the web between two glass rolls. The paper is then washed in a series of tanks containing water until all soluble salts have been eliminated. As part of the zinc oxide is retained in the parchmentized paper, it is advisable to pass it through a dilute caustic soda solution after having given a preliminary washing, and then to complete the elimination of soluble salts by a very thorough washing in pure water. After calendering the parchment is dried on polished, steam-heated copper rolls, glazed, and ultimately colored.

Since zinc chloride acts but slowly on cellulose it is advisable either to heat the solution to about 35° to 37° C., or else to pass the impregnated paper before washing over polished copper rolls heated to about 55° or 60° C. The exact temperature used will depend on the nature of the raw stock, its thickness and strength, as well as on the concentration of the solution and time of treatment.

The signs which indicate the end of the operation consist in the apparent swelling of the paper which acquires a dry appearance and is changed from a semi-transparent and relatively stiff condition to a translucid and softer condition.

As in the case of sulphuric acid treatment, the operation is continuous. The paper is generally passed through a heated chamber or over smooth hot rolls before entering the bath. By superposing two or more strips of impregnated paper and calendering hot, they adhere very firmly to one another and can no longer be taken apart.

Apparatus for Parchmentizing

The roll of paper is mounted on a suitable reel, and the sheet is drawn over a glass roll and under a second glass roll which is immersed in the parchmentizing bath. It then passes between two heavy glass rolls which squeeze out the excess acid, which falls on a lead apron and is returned to the bath. The distance between the reel and the glass press rolls can be adjusted by means of screws so as to obtain proper and uniform tension of the paper as it passes through the acid, and also the time during which the paper remains in the bath. Very close control of the action of the acid is thus obtained, which gives very uniform results.

The paper is then drawn through a small tank containing pure water which removes the bulk of the entrained acid. When the acid concentration in this tank reaches 20° Bé., it is replaced by fresh water and the acid is fortified to 60° Bé. and used for parchmentizing. On leaving this tank the paper passes over a set of six wooden rolls and both the upper and under faces of the sheet are plentifully sprayed with water, after which it passes through a second heavy glass press where the soluble lignodextrines formed on the surface of the sheet are removed.

The paper is then drawn through a tank similar to the acid bath, but containing a three per cent ammonia or ammonium carbonate solution. This removes the last traces of acid which may have come through the rinsing and spraying apparatus, so that the parchment shall be absolutely free from any foreign substances when it reaches the driers. The paper then goes successively through another press and through a second and a third set of sprays, between which is also a glas press. On leaving the last sprays the paper is put through a final press before passing on to the drier, which consists of a heated, polished copper cylinder. The numerous presses through which the paper is passed ensure the proper tension and spread it out transversely so that it is perfectly smooth when it reaches the drier, which in turn results in rapid and uniform drying with a minimum consumption of steam. A curved, hardwood smoothing bar may also be interposed with advantage between the last press and the drier in order to act as an added precaution against the possible formation of folds and wrinkles.

The various presses are rubber-jacketed and the pressure of the top rolls can be regulated by means of screws acting on the journals of the rolls. Each press is driven separately by means of a belt and cone-pulleys so that the speeds can be adjusted independently.

On reaching the drier the paper is pressed against the latter by means of a heavy metal roll, and it is held in intimate contact with the surface of the drier by means of an endless felt in much the same way as ordinary paper is held against the surface of the drier rolls. On leaving the drier the paper passes through a press of three heated rolls which rest directly on top of the drier roll. The paper is finally calendered and cut into sheets of the required size.

Parchment frequently is softened by means of glycerine. In that case, after leaving the last set of sprays and the following press it passes over a preliminary drier which removes a large proportion of the moisture and at the same time heats up the sheet somewhat, which facilitates absorption when it is passed

through a bath containing glycerine at 28° Bé. heated to about 35° or 40° C. The excess glycerine is removed by passing the paper through a press, from which it goes to the final drier roll; and the remaining operations are as described above.

Properties and Uses of Parchment Paper

The properties of parchment paper make it eminently suitable for important documents which require to be kept for a long time, such as official documents, state or municipal archives, deeds, insurance policies, bonds, stock certificates, etc. In some cases valuable documents are protected from destruction by fire by placing them in metal boxes completely surrounded by a solution of glycerine, alum, magnesium chloride, or other highly hygroscopic substance. When these boxes are subjected to high temperatures, as in the case of fire, the water is vaporized, and the steam exerts a very efficient protective action, and all the more so with parchment paper which is practically unaffected even by boiling water. The chances of preservation are very much greater than with ordinary paper.

Parchment paper also offers much greater security against ravages by insects than does ordinary paper; and this can still further be increased by incorporating into the paper before parchmentizing poisons such as mercuric chloride, as is sometimes done in the manufacture of safety papers.

Parchment paper is exceptionally well suited for deeds, stock and bond certificates, bank notes, etc., as the printing or writing cannot be eliminated, either by scratching or by chemical means, without deteriorating the paper in a very apparent manner. Even ordinary writing ink cannot be removed without the manipulation being apparent. This naturally gives much greater security against forgery.

The greater strength of parchment paper renders it valuable for plans, etc., which are liable to be handled somewhat roughly or to be exposed to moisture or even rain. Maps for the use of tourists are much more serviceable and durable when printed on parchment paper.

It also offers appreciable advantages for binding purposes owing to its strength and the very beautiful effects which can be obtained with it.

It can very easily be printed; and it is preferable to print it after parchmentizing, because otherwise the printing would be distorted by the considerable contraction which occurs during the acid treatment. It takes writing, with any kind of ink, just as readily as it does printing, and its affinity for dyes and other coloring matters is greater than that of cotton.

Apart from its use in the graphic arts and for manuscripts, parchment paper is used for sealing jam jars, etc., for making seals for cork-stoppered bottles, for wrapping products which should be protected from external moisture or which should retain their normal moisture, such as tobacco. In Germany large quantities of parchment paper are used for making sausage casings. Parchment paper is unaffected by caustic solutions and is more resistant to the action of cold acids than are animal membranes. The sealing of receptacles in this way is at least as efficient as sealing with the very best of animal membranes.

Of course parchment paper is not as strong as true parchment; but it is considerably more resistant to the action of chemicals in general and more particularly of water. Though it absorbs water and softens, like true parchment, it can remain immersed for weeks, and even be boiled in water without deteriorating in the least, and on drying it regains its former appearance and strength. True parchment, on the contrary, cannot long resist the action of hot water, and when boiled it rapidly dissolves and is converted into glue. Moreover, parchment being a nitrogenous substance readily putrefies when kept in a damp place, while parchment paper is quite unaffected under similar conditions.

The behavior of parchment paper towards nitric acid is of very great interest. If it is immersed for ten minutes in nitric acid of 1.4 to 1.5 density and then washed to complete elimination of the acid, it will be observed that the thickness of the paper has increased about 20 per cent and that its tensile strength is also very considerably increased though its surface contraction is quite negligible. After drying and lightly calendering, the appearance of the nitrated parchment is practically the same as before nitration, but its tensile strength and resistance to atmospheric conditions are very much greater than before. If the nitrated and dried parchment is immersed in a dilute sulphuric acid bath and thoroughly washed with water, it becomes clear and transparent as glass. Nitrated parchment paper is extremely resistant to the action of strong acids; but it dissolves in boiling caustic potash to a beautiful golden yellow solution.

A Number of comparative tensile strength tests with a Schopper tester showed that parchmentizing increased the strength of the paper approximately fivefold, while parchment paper has approximately 80 per cent of the strength of true parchment, when calculated to the same weight basis. It should be noted, however, that the thickness of a strip of parchment paper varies quite considerably, which renders it difficult to obtain satisfactory comparative tests.

The impermeability of parchment paper makes it valuable for photographic work, as it allows of considerable reduction in the amount of silver and gold salts required without interfering with the clearness of the image. Opaque parchment paper greatly resembles parchment coated with white lead, from which writing can be erased, and it is used for this purpose.

It is also used in the manufacture of de luxe playing cards; while cut into narrow strips and plaited, it is made into very light hats.

Wrapping Foodstuffs

The question has often been raised as to whether parchment paper really was the ideal material for wrapping foodstuffs, and particularly fats. Numerous cases have been reported of foodstuffs having been supposedly deteriorated by parchment paper. In one case margarine was reported to be adulterated with boric acid, when as a matter of fact it was wrapped in parchment paper containing this preservative.

It is an undeniable fact that parchment paper frequently contains lead, which comes from the small quantity of lead sulphate dissolved in sulphuric acid made by the chamber process. It is not to be wondered that basic lead sulphate will remain on the paper unless it has been washed perfectly. Cases have been reported of saturnism and of painters' colic attributed to the prolonged contact of food with parchment paper containing lead. But we remain skeptical!

The appearance of black stains in butter wrapped in parchment paper, quite independently of the development of micro-organisms, may be due to the presence of lead in the paper. The same phenomenon sometimes occurs in Dutch cheese. Herz and Kuhl examined a large number of parchment papers which had caused such accidents when used for wrapping foodstuffs, and they found large amounts of lead, varying from 0.032 to 3.960 grams per kilo of paper. The old papers caused the cheese to blacken in less than two days. A paper containing 0.282 g. of lead per kilo was used to wrap cheese and turned black in the course of a few days, while after ten days black spots appeared on the cheese.

Parchment papers which are to be used for wrapping foodstuffs should be prepared with acid containing at most only the merest trace of lead. At the present time contact acid is replacing more and more lead chamber acid, and it is becoming much easier to obtain very pure acid. But the parchment paper should be subjected to an exceptionally thorough washing, irrespective of the grade of acid used, whenever it is intended for wrapping foodstuffs.

In the absence of mineral poisons, parchment paper can cause the moulding of butter and fats owing to the process used to increase its flexibility. We have already mentioned the use of glycerine for this purpose; but inverted sugar solutions and starch syrups are also used, frequently in excessive amount, and as much as 10 to 20 grams of sugar has been found per kilo of

parchment. This high sugar content facilitates the development of moulds on the fats.

The presence of iron in the wrapper can give a bitter, metallic taste to butter owing to the formation of a lacto-butyrate of iron through the solvent action of the free fatty acids of the butter. The presence of calcium or of magnesium chloride in the paper can also affect the quality of the butter or margarine.

But when parchment paper meets all hygienic and sanitary requirements, its use as a wrapper for foodstuffs offers numerous advantages. In Germany, in particular, the enormous consumption of sausages has brought about a shortage of animal casings (some sausage factories require over 100,000 casings a day), which was met by the use of parchment casings. One of the big difficulties that was encountered was to find a suitable adhesive, which could withstand the action of boiling water during several hours, while the contents were being cooked. The Berliner Erbwurstfabrik recently received a consignment of two million casings, the manufacture of which required 2,500 kilos of liquid glue. About 150 workmen are employed in the manufacture and glueing of these artificial casings.

Binding Parchment

A reinforced parchment paper is always used in binding. This is prepared by uniting two or more sheets of parchment during manufacture, and pressing them together, as previously described. The resultant product is very strong and its appearance is so much like that of true parchment that it can be mistaken for the latter. If even greater strength is required, the paper is reinforced with one or more sheets of linen between the layers of paper.

Parchment Paper Preparations

Parchment paper may be rendered completely opaque by incorporating into it, before parchmentizing, a soluble barium or calcium compound, such as barium chloride, barium hydrate, lime, etc., which will give an opaque precipitate with the sulphuric acid when the paper is passed through the bath.

Imitation leather can be obtained by parchmentizing ordinary brown or yellow straw paper. After washing and drying it is calendered between rolls with a more or less grooved surface to imitate the grain of leather. For the production of thick sheets suitable for light roofing the paper is rolled around a large lead-jacketed wooden, or preferably glass, roll as it emerges from the acid bath, which can be advantageously heated by circulating hot water inside. The heat causes adhesion of the various layers to one another, and this may be further increased by means of a second roll riding on the large roll. When the required thickness has been reached, generally twelve to twenty plies, the hollow parchment cylinder is removed, slit lengthwise, and then washed till all the acid has been eliminated.

The first washing is preferably carried out with denatured alcohol, after which water is used in the usual way. The sheets are dried in a press at a temperature not exceeding 50° C. The product obtained in this way is very strong and resistant to the action of hot or cold water or of acids. It can be cut, sawn and worked up into any desired shape.

Parchment can also be made into slates for writing, so-called parchment slates. The abrasive used to make the pencil mark the slate consists of emery ground to pass completely through a 150-mesh sieve. It is mixed with shale black, logwood extract and a little ultramarine to give the required black color. On leaving the acid bath the parchment, obtained by combining together several sheets, is plentifully sprinkled with the abrasive mixture and is pressed lightly so that the particles will penetrate slightly into the paper and adhere firmly to it, giving a relatively smooth surface which, however, is sufficiently rough to be marked by the pencil. The paper is then dried over heated rolls and cut to the required size.

For certain purposes so-called safety parchment paper is made, which permits of detecting any attempted forgery, even when the writing has been completely removed. This is done by treating the paper before parchmentizing with equal parts of potassium ferricyanide and ammonium sulphide. Any attempt to erase the writing from such a paper changes its color so that the attempt can readily be observed even with the naked eye.

Coloring

Various processes can be used for coloring parchment paper. This can be done by:

1. Coloring the paper before parchmentizing;
2. Adding the dye to the parchmentizing bath;
3. Dyeing the finished parchment.

1. The first case is essentially the same as the dyeing of waterleaf paper with diamine dyes.

The dye is dissolved in boiling water (preferably condensed steam). For light shades about 1 per cent of dye is used, and for dark shades from 5 to 6 per cent, and added to the stock in the beater. After thorough mixing about 8 to 10 per cent of sodium chloride or anhydrous sodium sulphate, or 16 to 20 per cent of crystallized sodium sulphate, previously dissolved in a small quantity of hot water, is added.

For dark shades, in order to obtain maximum utilization of the dye it is advisable to heat the contents of the beater to about 50° or 60° C.

2. For the second process it is necessary to select dyes which are not acted upon by concentrated sulphuric acid, such as auramine O, chrysoidin AG, rhodamine B, safranine G extra O, diamind crystal fuchsine, crystal violet 5BO, methylene blue BB, Victoria blue B, fast crystal green O, brilliant crystal green extra, China yellow B, orange extra, fast brown, acid violet 6BS, water blue B, alkali blue B, water-soluble nigrosine, naphthol green B and naphthol black B.

3. The third process is essentially the same as the surface coloring of ordinary papers. The most soluble and brightest acid dyes, or the eosin dyes are generally used; and in some cases basic dyes are used.

A. 0.5 to 1 per cent solution of the dye is prepared for light shades, and a 5 to 6 per cent solution for dark shades, and the parchment is passed through the dye bath in much the same way as it was passed through the parchmentizing bath. In order to prevent precipitation or crystallization of the dye from concentrated solutions (over 1 per cent) it is advisable to keep the dye bath at a temperature of 50° to 60° C. Basic dyes are preferably dissolved in presence of a small quantity of acetic acid.

In coloring parchment paper, either by brushing or by spraying, the dyes selected must be fast to light, acids and alkalies and must be easily soluble. Diamine dyes are especially suitable in this case, as in aqueous solution, without addition of electrolytes, they give shades which are relatively fast to water. Acid dyes are used for obtaining exceptionally bright shades.

The dye is dissolved in boiling water and diluted to the desired concentration. It is applied either by means of rotary brushes or by passing the paper through the solution and through a rubber-jacketed press. The paper is then dried and passed through a heated calender.

With acid dyes, addition of a small quantity of soluble starch or of neutral starch paste to the bath increases the fastness of the shade.

Pasting

Owing to its lack of porosity and of affinity for adhesives, parchment paper is a difficult material to paste. Numerous processes and formulas have been proposed; but naturally those manufacturers who have found satisfactory adhesives keep this knowledge to themselves.

In many cases adhesion is obtained by merely interposing between the two pieces of parchment to be glued a strip of unsized paper, gummed on both sides, and applying light pressure until the glue has dried. The adherence is improved by moistening the edges of the parchment with alcohol. A good formula for such a gum consists of a solution of absolutely neutral Cologne glue containing 2 per cent of saturated aqueous solution of borax.

A solution of casein constitutes a satisfactory adhesive for pasting the seam of parchment paper bags for containing greases.

Concentrated japan is also suitable for the purpose, as it is not repelled by greaseproof papers and on drying it is odorless and tasteless.

A good paste can also be prepared by swelling separately one kilo of a good grade of neutral glue in cold water for twelve hours, and 150 grams of ichthyocol in a mixture of equal parts of water and denatured alcohol. The adhesives are dissolved by heating and mixed, and after adding 100 grams of linseed oil the mixture is strained through muslin.

Another good adhesive consists of casein dissolved in a saturated aqueous borax solution; or again, a mixture of egg albumin and of milk of lime, which must, however, be used hot. A mixture of glue and of alum can be used, or a solution of glue containing 4 per cent of sodium dichromate. The latter should be applied in the dark, and after drying the seams should be exposed to sunlight. This adhesive is unaffected by hot oils or greases. The presence of dichromate does not prevent the use of the parchment for wrapping foodstuffs, for under the action of sunlight it is changed into an insoluble and harmless compound.

Chromated glue can also be used for pasting true parchment, or for pasting together parchment paper and true parchment.

Parchment paper is soluble in concentrated sulphuric acid, and this property can be used to obtain very strong adhesion.

Parchment Board

It is not possible to parchmentize boards in the usual way, because the acid does not penetrate sufficiently far and acts only superficially. If board treated in this way is soaked in water it swells up and separates into three separate layers, two outer parchmentized layers and an inner layer which has not been acted upon by the acid.

The only way of obtaining a board which has been parchmentized right through is by uniting several plies of parchmentized paper as they come out of the acid bath and passing them through a press. The combined sheets must be washed very thoroughly to eliminate the last traces of acid, after which they are passed under plates heated to 110° C. and pressed for four or five minutes under a pressure of 8 to 10 atmospheres. Before pressing it is advisable to pass the sheets between heavy felts to remove the greater part of the moisture.

With very thick boards, better results are obtained by adding 20 grams of nitric acid or of sodium nitrate per liter of sulphuric acid.

Attempts have been made to parchmentize board directly by passing through a series of sulphuric acid solutions of increasing strength, up to 60° Bé., so as to obtain gradual penetration of the acid. But such a procedure cannot be successful, as the weak acid has no parchmentizing action and even prevents parchmentizing in the stronger acid owing to dilution of the latter by the water absorbed by the board.

Artificial Parchment

This is a special paper from which ink or pencil writing can be removed merely by wetting with water, and it is entirely different from parchment paper.

It is prepared by coating both sides of a fairly strong, smooth, white paper with the following varnish:

Kauri copal	32 parts
Light boiled linseed oil	32 parts
Spirits of turpentine	38 parts

After thorough drying, preferably at 50° to 55° C., both sides of the sheet are given a heavy coat of the following paint:

White lead	95 parts
Lead acetate	4 parts
Levigated pumice stone	5 parts
Light linseed oil with drier	30 parts

The paint is allowed to dry and three more coats are applied on each side of the paper, which is finally polished with pumice stone and woollen rags.

Another process consists in rubbing strong paper with pumice and applying a ground coat of:

Kaolin	700 parts
Gelatine	65 parts
Water	1,250 parts

After drying two coatings are applied of a similar mixture in which the kaolin is replaced by white lead. The dried paper is then given three coats of the following paint:

Strong boiled linseed oil, with drier	100 parts
Light Kauri copal varnish	150 parts
White lead	1,250 parts
Yellow ocher	15 parts
Spirits of turpentine	100 parts

After drying the paper is polished with pumice and finally with woollen rags.

Parchmentized Filter Paper

Ordinary filter paper is treated with hydrofluoric acid to remove all inorganic impurities and washed thoroughly to remove all traces of the acid. After drying the paper is immersed for five hours in a bath consisting of equal volumes of 66° Bé. sulphuric acid and of nitric acid of specific gravity 1.5. The paper is then washed with water till free from acid, and dried.

Parchmentized filter paper is slightly hygroscopic. It burns very easily, leaving practically no weighable residue. It retains the very finest precipitates, but at the same time filters much faster than ordinary filter paper.

Distinguishing Between Parchment Paper and Vegetable Parchment

The paper is cut into strips about half an inch to an inch wide and immersed in hot water for some time. Parchment paper when treated in this way does not swell, and its strength is not impaired. On tearing it, the tear is as smooth as if it had been cut, and under a slight magnification the edge will be seen to be slightly ragged.

Vegetable parchment, on the other hand, swells up in water, and after a short period of immersion it loses practically all strength. On tearing, the fibers can be distinguished with the naked eye; and when the tear is examined under a low-power microscope they are quite apparent, as in the case of ordinary paper.

On immersing white parchment paper in lime water its color remains unchanged, while vegetable parchment turns brownish yellow and the color persists even after washing.

Turbine Explodes at Mead Plant

DAYTON, Ohio, August 24, 1926.—Damage estimated at $20,000 was entailed at the plant of the Mead Pulp and Paper Company, Chillicothe, August 20, when a 3,000 kilowatt steam turbine exploded. Charles Ganshermer, machinist, was severely injured.

A two-hundred pound piece of casting, which ripped through the roof and skyrocketed one hundred feet, crashed through three floors of the house of Dr. Charles Milles, dentist, located nearby, and ended its fall on a davenport. Luckily no one in the home was injured.

The company is repairing the damage as rapidly as possible and will replace the turbine.

Norwegian Paper Workmen Strike

WASHINGTON, D. C., August 25, 1926.—Reports have been received by the Department of Commerce of a strike in the Norwegian paper industry involving some 13,000 workers, which went into effect on August 17. The employers proposed cutting wages and the workmen refused the cut.

Angus McIntyre Resigns

WINDSOR MILLS, Que., August 30, 1926.—Angus McIntyre, who has been a superintendent of the St. Francis mill of the Canada Paper Company for the past 16 years, has resigned and will take a well deserved holiday. Mr. and Mrs. McIntyre are on a motor trip to Old Orchard and the White Mountains.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

Clarence J. West, Chairman

Shingle-Strip Cutter. H. Abraham assignor to The Ruberoid Co. U. S. pat. 1,557,391, Oct. 13, 1925. The main feature of the invention resides in the fact that the knives, or dies, instead of being parallel to the length of the cutting roll, are placed helically, so as to cut the web diagonally into a succession of completed shingle strips at each revolution. The knives are shaped so as to cause but very slight waste of material. This arrangement provides a sliding cutting or shearing action, resulting in cleanly cut edges without unduly dulling the knives. Moreover, the knives assist in feeding the work through the machine and the strips have no tendency to stick to the knives.—A. P.-C.

Creping Paper. E. H. Angier. U. S. pat. 1,543,482, April 21, 1925. In the creping of moist paper by means of a doctor acting against the creping roll, the operation is rendered more effective by confining the moist web to the creping roll by means of a relatively empermeable overlying layer, preferably of the nature of duplex paper. The latter, which is creped with the other paper, may be dried and used as creped duplex paper; or it may be separated from the other web immediately after leaving the doctor and used again immediately after smoothing out the creping. The crepings or crinklings obtained in this manner are much sharper and more clean cut than those which result when paper is creped in the usual manner.—A. P.-C.

Method of and Apparatus for Crinkling Paper. W. A. Lorenz assignor to The Otaka Fabric Co. U. S. pats. 1,548,783 to 1,548,790, inc., Aug. 4, 1925; U. S. pat. 1,550,084, Aug. 18, 1925. No. 1,548,783: the paper is made elastic in all directions by corrugating the web longitudinally, thereby reducing it in width, and then creping the corrugated paper with the crinkles conforming generally to the contour of the corrugations. No. 1,548,784: relates to certain features in the construction of the crinkling doctor. No. 1,548,785: a belt is provided to keep the paper in close contact with the creping roll, and intaglio designs may be formed on the belt for producing corresponding designs or effects in the crimped web. No. 1,548,786: the paper is confined against the creping roll by means of an endless belt which passes over a fixed support in close proximity to the creping doctor, whence it is guided back to the introductory side of the roll. No. 1,548,787: the fibers are first bent or broken, and water is applied to the web which is then creped. No. 1,548,788: longitudinally corrugated paper is passed over a corrugated roll to which it is made to adhere, and against which it is creped by a suitable doctor fitting into the corrugations of the creping roll. No. 1,548,789: the crinkling roll is partly immersed in water, so that the paper is moistened in contact with the roll, and the excess moisture is pressed out of the paper before it reaches the crinkling doctor No. 1,548,790: the paper is fed on to a rotating suction roll at a speed in excess of the peripheral speed of the suction roll, so that the air pressure crinkles the paper against the roll. No. 1,550,084: is an improvement on No. 1,548,783. Instead of corrugating the paper by drawing it between a pair of plates having converging grooves, the corrugating operation is divided into several steps by drawing the paper through a succession of pairs of grooved plates, between each pair of which is a pair of corrugated rolls.—A. P.-C.

Method of and Apparatus for Making Multiple-Ply Paper. E. B. Fish. U. S. pats. 1,538,788 May 19, 1925, and 1,552,286, Sept. 1, 1925. Each ply is made on a separate fourdrinier type of wire with breast roll, table rolls and suction boxes. The wires are mounted one above another, but offset longitudinally. The several webs thus formed are delivered on to an inclined wire which is placed in close proximity to the delivery ends of the fourdriniers. To facilitate interlocking of the fibers of the different layers forming the composite web or paper strip, water is supplied to the surface of each web prior to the superposing of another web thereon. Before pressing, the composite sheet is subjected to suction, and preferably additional water is flowed on to its upper surface and sucked through to cause the interlocking of the fibers of the different layers. It is then subjected to the compressing action of a dandy roll, then to the usual couch rolls and may be further treated and finished as required. The method is particularly suitable for the manufacture commercially of photographic paper of the kind which is sensitized on both sides, with an intervening opaque layer. No. 1,538,788 covers the method and apparatus, and No. 1,552,286 the product.—A. P.-C.

Machine for Packaging Rolls of Paper. E. Jagenberg. U. S. pat. 1,541,962, June 16, 1925. Means are provided for winding several layers of glued paper tape around each end of the roll, and at intermediate points if desired, to form reinforcing rings. The rings at the ends project beyond the roll, and before the glue has had time to dry, the portion which projects is bent over the end face of the roll.—A. P.-C.

Machine for Folding, Cutting and Stacking Paper Napkins. P. D. Pauls. U. S. pat. 1,548,626, Aug. 4, 1925. The general organization of the machine comprises three folding units in which the paper is folded longitudinally, cutting rolls arranged to partially cut the passing band of material into proper lengths and a unit for transversely folding and severing the sheets into finished napkins. Mechanical features are provided: for varying the position of the folds and the lengths of cut so as to produce napkins of varied size and other articles such as table covers, towels, etc.; for depositing the cut and folded articles in a suitable receptacle with a continuous forward movement of the material; for stacking and counting the finished article and controlling the counting device in case of a break in the paper; and for adjusting the tension and position of the folding rolls.—A. P.-C.

Apparatus for Forming Pulp Articles. O. J. Salisburg. U. S. pat. 1,537,195, May 12, 1925. The articles are formed on a suction cylinder mold rotating in a pulp vat, the surface of the mold being of such shape as to give the articles the desired shape. A belt of suitable fabric, e. g., felt, wraps partly round the cylinder mold and is sucked into snug engagement with the outer surface of the cylinder by means of the vacuum. The articles build up on the felt, which is removed from engagement with the cylinder by air blasts at the point where the felt leaves the mold. A casing with heating means, e. g., steam coils, is provided over the upper portion of the cylinder mold. Means are provided for cleaning the felt before it returns to the pulp vat.—A. P.-C.

Truck for Handling Paper Rolls. C. E. Cochran assignor to The Elwell Parker Electric Co. U. S. pat. 1,538,168, May 19, 1925. The truck is equipped with a flexible member extending over a suitable boom which is hinged at its lower end to the truck frame, the load being received in a suitable support pivoted to the lower end of the boom. The flexible member first raises the load, whether picked up from a recumbent or vertical position, by tipping the boom over the truck body and then up-ends the load, if necessary by rotation of the pivotal support into a convenient transportable position. The arrangements may be such that after transportation the load may be deposited in either a vertical or a recumbent position. A suitable spring mechanism is arranged to support the tipped boom and automatically return it

to load-discharging position, when the relaxing of the flexible member permits such movement.—A. P.-C.

Machine for Printing or Embossing Roofing Felt. O. D. McFarland assignor to the Guyton and Cumfer Manufacturing Co. U. S. pat. 1,540,944, June 9, 1925. The pressure roll is arranged so that it may be made to contact with the embossing roll any desired pressure, with a quick release attachment for automatically withdrawing the pressure roll without disturbing the pressure adjustments. Four small rolls are provided between which the felt hangs loosely in a loop just before it is fed between the pressure and embossing rolls, and the pair of guide rolls immediately before embossing roll are flanged so that the sheet is accurately guided into the embossing press. A water spray is played continually on the surface of the pressure roll to keep its surface clean and prevent the sheet from sticking to it. —A. P.-C.

Abstracts of the Pulp and Paper Literature. E. Graap. Zellstoff U. Papier, 5, 490-494 (Dec. 1925); 6, 44-47 (Jan. 1926). Brief abstracts are given of articles appearing in German magazines dealing with the chemistry and mechanical side of pulp and paper manufacture. The period covered is July—Sept. 1925.—J. L. P.

An Account of a Trip to America. K. Bauer. Wochbl. Papierfabr. 57, 56-59 (Jan. 16, 1926). An account of impressions received on visiting 14 American pulp and paper mills.—J. L. P.

Recent Developments in the Manufacture of Pulp and Paper in America. W. Brecht. Wochbl. Papierfabr. 57, 122-124 (Jan. 30, 1926). Part of a series of articles comprising a review of recent developments in the pulp and paper industry in America. Reference is made to manufacturing conditions in the United States, and the subject of raw materials for papermaking is discussed.—J. L. P.

Development of the Paper Industry in the Rhineland. M Schwann. Papierfabr. 24, 24-26 (Jan. 10, 1926). Historical.—J. L. P.

Progress of Waste Elimination in the Paper Industry. G. D. Bearce. Industrial Management 71, 112-114 (Feb. 1926). Brief outline of the work carried out during the last few years by the committee on waste of the paper industry on the elimination of white water losses and on the utilization of bark and waste wood, showing the resultant savings and reduction in stream pollution—A. P.-C.

Stream Pollution and Paper Mills. H. A. Rothchild. Paper Trade J. 82, No. 4, 47-49 (Jan. 18, 1926). Discussion of the effects of paper and pulp mill effluents on fish and aquatic plant life.—A. P.-C.

Testing, Analytical and Research Laboratories of the French School of Paper Making. L'Industrie Papetiere 4, 374-376 (Dec. 1925); 5, 15-19 (Jan. 1926). A description of the laboratories and their equipment with a list of the principal researches carried out from 1907 to 1925.—A. P.-C.

Report of the Committee on Waste. G. D. Bearce et al. Paper Trade J. 82, No. 8, 143-146 (Feb. 25, 1926). A review of the present status of waste in the pulp and paper industry, showing recent progress in its elimination.—A. P.-C.

Continuous Filtering. K. W. Geisler. Zellstoff U. Papier 6, 26-31 (Jan. 1926). The operations of various types of filtering devices are described.—J. L. P.

Recovering Pulp from Waste Paper. L. E. Granton. Eng. pat. 240,924. The wastage obtained in deinking printed waste paper, containing ink pigment, fillers, deinking agents and a large proportion of pulp is mixed with sulphite, groundwood, or a mixture of the two and made into paper suitable for packing paper, wrapping paper, magazines, handbills, tickets, etc. Colors and bleaching agents may be added, and the strength of the product may be increased by the addition of rubber latex to the pulp.—A. P.-C.

Durability of Writing Paper. Svensk Pappers Tiding; World's Paper Trade Rev. 84, 1610-1614 (Nov. 20, 1925); Paper Makers' Monthly J. 63, 419-421 (Nov. 16, 1925); Paper Mill 49, No. 50, 14, 16 (Dec. 12, 1925). Tests carried out at the Swedish Government Testing Institute, Stockholm, show that: (1) the tensile strength is increased and elongation decreased on increasing the speed at which the Schopper tester is run; (2) no difference in folding resistance is observed when running the machine at 80 and 110 double folds a minute, and an increase of about 5% on running it at 140 double folds a minute; (3) better agreement is obtained in the determination of tensile strength than in the determination of folding resistance; (4) under the action of light or and heat the folding resistance of paper made from bleached sulphite decreases much more rapidly than that of unbleached or bleached cotton or linen rag paper; (5) increase in the copper number of the fibrous material probably reduces the durability of the paper; (6) rosin sizing causes a decrease in the folding resistance and an increase in the acidity of the paper as compared with unsized paper; (7) deterioration in durability due to rosin sizing is probably not sufficient to render rosin sizing unsuitable for paper intended for keeping indefinitely, provided excess of aluminum sulphate is avoided; (8) aluminum acetate does not seem to present any advantage over aluminum sulphate from the standpoint of durability of the paper; (9) sizing with animal glue increases the folding resistance as compared with unsized paper, but the increase is lost comparatively rapidly on exposure to light or/and heat and on storing at ordinary temperature; (10) the degree of acidity of tub-sizing within the limits generally accepted in practice has little or no effect on the durability of the paper; (11) loading with a mixture of china clay, gypsum, chalk, asbestine and Swedish talcum has a beneficial rather than detrimental effect on the durability of the paper. A method for determining acidity is described (compare Koehler and Hall, Paper Ind. 7, 1059, 1063, Oct. 1925).—A. P.-C.

Paper Making in Newfoundland. J. N. Stephenson. Pulp and Paper 23, 1433-1446 (Dec. 10, 1925). A detailed description of the pulp and paper mill of the Newfoundland Power and Paper Co. at Corner Brook, Nfd.—A. P.-C.

Wayagamack. J. N. Stephenson. Pulp & Paper 23, 1531-1538 (Dec. 31, 1925). A description of the mills of the Wayagamack Pulp & Paper Co., at Three Rivers, Que., and more particularly of the recently completed newsprint mill.—A. P.-C.

Harold Hibbert: His Training and His Work. Pulp & Paper 24, 13 (Jan. 7, 1926) Biographical.—A. P.-C.

Determination of the Hydrogen Ion Concentration of Strongly Colored or Torbid Fluids by Means of Dialysis. K. G. Dernby. Teknisk Tidskrift. May 30, 1925; Pulp & Paper 23, 1410 (Dec. 3, 1925). Outline of the application of the method originally worked out by Krogh in Denmark and Dale in England, which consists essentially in placing the liquid under investigation in a collodion membrane immersed in distilled water and determining the pH of the dialysate colorimetrically.—A. P.-C.

Control of Operations in the Pulp Mill. R. Dieckmann. Paper Ind. 7, 1606-1607 (Jan. 1926). An address outlining modern chemical control in the manufacture of sulphite pulp.—A. P.-C.

Waste in the Industry and Stream Pollution. G. K. Spence. Paper Trade J. 81, No. 25, 41-42 (Dec. 17, 1925). Very brief review of what has been done to eliminate waste from waste liquors in pulp and paper mills, with reduction in stream pollution. —A. P.-C.

Characteristics of Paper and Their Relation to Lithography. R. F. Reed. Paper Trade J. 81, No. 27, 45-46 (Dec. 31, 1925). In order to print satisfactorily, paper must be properly conditioned so that its moisture content is in equilibrium with the atmosphere in which it is to be printed. To do this it is essential to control the relative humidity of the pressroom so that its variation during the 24 hours and from one day to the next is confined to narrow limits. Trouble could be practically eliminated in most lithographing plants in the U. S. by maintaining 55% relative humidity at 72° to 73° F. during the winter, and 65% relative humidity at 82° to 83° F. during the summer, which could be maintained without difficulty and at comparatively small expense.—A. P.-C.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Distribution Of Burden *

By Grant L. Bell, Auditor, Consulting Accountant,
Scranton, Pa.

As a matter of explanation, it should be stated that the term, burden, as used here, will be understood to mean overhead or manufacturing expense. As all experienced cost accountants agree, it is the puzzle of the cost finder. It is the great cause of the difficulties, the inaccuracies, and most of the divergencies in both the theory and practice of cost finding. Yet, while it is frequently a "puzzle," it is nevertheless an important part of all manufacturing costs, sometimes by far the greater part, although it is often, in a greater or less degree, an intangible part, showing in results but not fully seen.

Burden is the third of the three elements of production costs, and is unquestionably the most difficult to determine accurately; and when its determination is completed, the end in view is but half attained, for the overhead as determined must still be applied to the manufactured product, so that it will, when added to the charges for material and labor, disclose the true cost of production. For the benefit of our younger members present who may not be experienced in cost work, it might be well at this point to depart from the subject of burden and spend a few minutes on the first two elements of cost, namely, material and labor.

Material

The storing and recording of raw materials and finished product is one of the first and most important features pertaining to the success of the cost system, the effectiveness of the stock record depending very largely upon actual storeroom accommodations, and the accuracy of production costs depending to a large extent on the method of handling stores and on the accuracy of the stores record.

All materials should be controlled by stores, that is, all materials purchased should be charged into a stores account. The stores account may be divided into as many divisions as the business may require, such, e.g., as raw stores, semi-finished stores, finished stores, etc.

The means of withdrawing materials from the stores is by requisition, a requisition being required for each lot of materials taken from the stores for manufacturing purposes. The requisition bears the order number on which the material is to be applied, and comes to the cost clerk properly filled out, showing the kind and quantity of materials used. Material requisitions are divided into two classes, namely: Direct and Indirect.

Direct material is material withdrawn from stores that can be charged direct to some particular job or order.

Indirect material consists of supplies and materials which are necessary in the production of the product but which cannot be applied to any particular order. That is, they apply to all orders passing through the process of manufacture.

From N.A.C.A. Bulletin.

It is the practice of some manufacturing plants to charge indirect material direct to manufacturing expense as purchased, but such practice should be discouraged, as indirect material is a large factor in all plants and should be controlled in the same manner as the direct materials.

The control of indirect materials is brought about by a special series of order numbers, known as factory expense number, to which all such materials are charged during the month and the aggregate total of these items is added to manufacturing expense or overhead for distribution to cost of production.

Due to the inaccuracy of requisitioning materials from stores, there is frequently found to be a large shrinkage in materials in stores. This matter has been the subject of debate many times in the past, as to whether or not reserves should be created to cover the shrinkage. In my opinion such reserves tend to create a carelessness among the employees, for the reason that the practice of making monthly adjustments to these reserves, becomes known and the clerks become less cautious in the performance of their duties. There is a way to overcome this shrinkage in materials which I believe is far superior to the method of setting up reserves. It is the method of periodical tests. In other words, we should guard the materials in stores as carefully as we do the cash in the bank, and we would not think of setting up reserves for shortages in cash.

By the method of periodical tests, adjustments can be made from time to time through the burden account as discrepancies occur in the stores, and in this way the cost department is on notice at all times as to where the shrinkage occurs, whereby in setting up reserves the cause of the shrinkage cannot be obtained.

Procedure in Handling Material Reports

A brief outline of the procedure in handling material reports will now be given.

A—Requisitions should be numbered with a definite series of numbers so that the cost division will know whether or not, all requisitions are being received from the factory.

B—Requisitions should be thoroughly examined when received from the factory office to see that they are properly numbered and dated, and when they contain a proper description of the material to which they relate.

C—Requisitions should then be priced from the stock records, calculated, and approved for entry to stock and cost records.

D—Entry is then made to the various cost records as follows: Direct material, under the order method of cost finding, to the definite cost records of each job or order; under the process method of cost finding, to the particular cost record of the definite process or article affected.

SECTION. 1.
FORM 1.

ACCOUNTS PAYABLE REGISTER

PAGE ____
MONTH OF ____ 192__

INTERNAL	DATE	ACCOUNTS PAYABLE			RECORD OF PAYMENT			CREDITORS NAME	GENERAL LEDGER			STORES		ADM. EXP.		MFG. EXP.		PAY-ROLL		EXTERNAL
		ALLOWANCE DEBIT	INVOICE NUMBER	AMOUNT CREDIT	DATE PAID	CHECK NUMBER	UNPAID BALANCE AT END OF MONTH		ACCT NO	DEBIT	CREDIT	DEBIT	CREDIT	DEBIT	CREDIT	DEBIT	CREDIT	DEBIT	CREDIT	
								Payroll Payment												

SECTIONS 2-3-4-5.
FORM 2.

RECAPITULATION SHEET

ACCOUNT NO ____
ACCOUNT ____

	MONTH ____			MONTH ____			MONTH ____			MONTH ____			MONTH ____			MONTH ____		
	DAY	FOLIO	AMOUNT	DAY	FOLIO	AMOUNT	DAY	FOLIO	AMOUNT	DAY	FOLIO	AMOUNT	DAY	FOLIO	AMOUNT	DAY	FOLIO	AMOUNT

ACCOUNT NO
ACCOUNT ____

MANUFACTURING EXPENSE, DISTRIBUTION SHEET.

SECTION 6.
FORM 3.

MONTH OF ____ 192__

PRODUCTIVE DEPARTMENTS															REFERENCE									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	DATE	FOLIO	AMOUNT							

ACCOUNT NO ____
ACCOUNT ____

NON-PRODUCTIVE DEPARTMENTS.

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41

FOLIO ____
DEPARTMENT ____

SYNOPSIS OF OPERATIONS

ACCOUNT	A/C No.	JANUARY			FEBRUARY			MARCH			APRIL			MAY			JUNE		
		CURRENT MONTH	THIS YEAR TO DATE	LAST YEAR TO DATE	CURRENT MONTH	THIS YEAR TO DATE	LAST YEAR TO DATE	CURRENT MONTH	THIS YEAR TO DATE	LAST YEAR TO DATE	CURRENT MONTH	THIS YEAR TO DATE	LAST YEAR TO DATE	CURRENT MONTH	THIS YEAR TO DATE	LAST YEAR TO DATE	CURRENT MONTH	THIS YEAR TO DATE	LAST YEAR TO DATE

Indirect Material to the department and expense account shown on the requisition.

E—Total amount of direct material requisitions for the month is a debit to work in process account and a credit to stores account; and in the case of indirect materials, a credit to stores and a debit to manufacturing expense.

Labor, the Second Element of Production Cost

There are many ways and methods for controlling factory labor, and where the manufacturing plant is large enough to warrant the expense, there is no better method than the tabulating machine method. However, as many of the plants have not adopted this method, I will give you a brief outline of a system of time-keeping which is very quick, elastic and accurate.

The method which I would recommend for a plant of any capacity, in the absence of accounting machines, comprises a coupon time ticket, consisting of a pay check and four coupons. This time ticket is perforated between the coupons for cutting and sorting. Each employee is given one of these cards on which he is required to note daily the nature of work done and the time required to complete the work, marking the operations and any other information which the cost division may require.

As these coupons are rated and extended, the aggregate total of all coupons will equal the time and amount shown on the pay check.

The method of distribution is then similar to the tabulating machine method. The pay checks are filed by man number until the end of the pay period, when they are added by machine for payroll purposes, and the coupons which were separated from the pay check are filed according to order number until the completion of the order when they are totaled and charged direct to the order. At the end of each month all coupons in files should be totaled and posted to the cost sheets to prove the total labor charge for the month.

Work in Process Account

For control of the material and labor charged to shop or factory order, an account known as work in process is opened to which are debited all charges made to shop and factory orders. The work in process accounts acts as a control on material and labor charges into production, in much the same way as the accounts receivable and accounts payable accounts control the subsidiary customers' and creditors' ledgers in general accounting.

Factory Order

An important element in the success of a cost system is the method of issuing factory orders. The nature of the factory order will depend entirely upon the kind of product manufactured and the method of plant production. In any case, however, factory orders should be divided into two classes, namely: productive and non-productive. Productive orders cover product manufactured for stock or sale and should in all cases be controlled by the requirements of the sales orders and the maximum and minimum quantity to be carried in the plant stores. Non-productive orders cover construction, installation of equipment, manufacture of tools, etc. Separate orders should be issued for each and every lot or job started in the factory, whether for manufacture of product or construction work. Manufacturing orders should clearly state the description of the work to be done, and copies of all factory orders should be sent to the cost department from which a cost sheet will be made for control of the cost of producing the product called for on the order.

STANDING ORDERS—In every factory there are certain quantities of materials and labor consumed which cannot be applied against any particular manufacturing or plant order, as for instance—oil, waste, cleaning, foreman, truckmen, packers, etc. In preparing the classification of accounts, special account numbers should be provided into which all material and labor of this character will be charged. No orders need be issued from time to time for this class of material and labor, standing order numbers taking the place of factory orders, but special bulletins should be located throughout the plant where access can be readily made to same by the foremen and workmen in the plant, showing the standing order numbers and description of accounts.

ROUTE ORDERS—In connection with the factory order, route orders should be made and forwarded to the plant superintendent to follow the parts to be manufactured from the raw stores through the plant to the finished stores. This route order will give full detail as to the product called for on the manufacturing order and is the medium through which the factory employee gets his information as to order number, etc., for marking time cards.

Cost Sheet

The cost sheet is merely a form of ledger for posting the details of the work in process account. Cost sheets are made for each factory order, and to these cost sheets are charged all materials and labor consumed on these orders, the cost sheet bearing the same order number as the shop orders. Information as to material and labor costs are furnished by material requisitions and time tickets, as previously explained.

Burden

Having discussed the first two elements of Cost, let us return again to the third element, burden.

This element is divisible into at least three distinct parts, which are as follows:

A—Indirect material.

B—Indirect labor.

C—Fixed and miscellaneous charges.

These will be taken up in turn.

INDIRECT MATERIAL—Under this classification are included all items of miscellaneous materials that are necessary in production of manufactured goods but which, in themselves, do not appear in the product itself.

INDIRECT LABOR—Under this heading must be classified all expenses in factory and factory offices for labor that is not expended directly on goods in process of manufacture and which cannot definitely be allocated as part of the cost of some particular piece or unit.

FIXED AND MISCELLANEOUS CHARGES—The third division of burden element of cost consists of those unavoidable expenses generally known as fixed charges. These include such items as depletion, amortization, rent, depreciation, taxes, insurance, and such other miscellaneous charges of a similar nature as cannot consistently be classified as either direct or indirect materials or direct or indirect labor.

In order to obtain departmental costs which will facilitiate a more equitable distribution of overhead expenses to manufacturing orders, it is first necessary to determine the proper division of the plant into productive and non-productive departments. By productive departments I mean, departments through which parts pass in the process of manufacture; the non-productive departments being those departments which affect the process of manufacture as a whole, but not on any particular unit thereof.

The next step after determining the proper departments is to provide a quick and accurate method of distributing the overhead expenses to these departments. For this purpose I find the following plan satisfactory, as being quick and accurate:

A—Classify the expense accounts as to administrative and manufacturing.

B—Use an accounts payable register for entering all invoices received, of whatever nature, and for the distribution of the same. This register should be designed as follows:

Section 1—Accounts Payable Record.
Section 2—General Ledger Accounts.
Section 3—Stores Account.
Section 4—Payroll.
Section 5—Administrative Expenses.
Section 6—Manufacturing Expenses.

These sections should be subdivided as follows:

Section 1—ACCOUNTS PAYABLE RECORD, Form 1, controls the entries to Sections 2 to 6, inclusive, this record being so designed as to contain a columnar section for each of Sections 2 to 6, inclusive. The total of each section in the Accounts Payable Record will agree with the aggregate total of the different accounts in its respective section, if postings have been made correctly. Any discrepancies can be easily located by this method, for the reason that the sections are controlled and will show in which section the errors are made.

Section 2—GENERAL LEDGER ACCOUNTS—to contain a recapitulation sheet, Form 2, for each asset or expense account not provided for in stores or manufacturing accounts.

Section 3—STORES ACCOUNTS—to contain a recapitulation sheet, Form 2, for each asset or expense account not provided for in stores or manufacturing accounts.

Section 3, STORES ACCOUNTS—To contain a recapitulation sheet, Form 2, for each asset or expense account not provided for in stores or manufacturing accounts.

Section 4—PAYROLL—only one recapitulation sheet required, Form 2.

Section 5—ADMINISTRATIVE EXPENSES—to contain a recapitulation sheet Form 2, for each expense account as per classification of administrative and selling expense in the chart of accounts.

Section 6—MANUFACTURING EXPENSES—to contain an Expense Distribution Sheet, Form No. 3, for each manufacturing expense account as per classification of manufacturing expense in the chart of accounts.

Each section should have index sheets bearing the account number—a separate index sheet for each account. As invoices are received and entered in the Accounts Payable Register, Form 1, entry will also be made to its proper section and account at the same time, thereby completing the distribution of each invoice as received.

The distribution of manufacturing expenses will be handled in the following manner:

A—Classify the expense accounts in the expense distribution section in accord with the classification in chart of accounts, providing a tabbed index for subdivision of accounts.

B—Expense distribution sheet, Form 3, is designed to provide a column for each division.

C—Expense bills as received by cost division will be entered in accounts payable register as a debit to manufacturing expense and credit to accounts payable, showing account number to be charged. As bills are entered in the accounts payable register the same will be posted immediately to expense distribution sheets, distributing same as to division applicable.

D—At the close of the month the expense distribution ledger will be balanced with the manufacturing expense column in the accounts payable register, after which the non-productive divisions will be prorated over the productive divisions and the final total of the productive divisions prorated over cost of work in process.

E—To assemble the expense distribution by division, use Form 4, "Synopsis of Operations," which requires a set of these sheets for each division, with the expense items listed in chronological order according to number.

Method of Overhead or Burden Application

Assuming that the departmental method of distributing overhead just outlined is adopted, there still remains the complex problem of application. This is a problem of determining upon what basis the overhead shall be distributed within the departments so that each job, order, or article may be charged with the portion that properly belongs to it.

In order to establish a basis of distribution several questions regarding the conditions of production in the plant must first be answered. These are:

A—Shall the basis for the distribution be the cost of the labor expended upon the work, or the time given to it in the department?

B—Does the cost of material enter into it as a factor?

C—Is a machine rate possible or practical?

It is thus seen that no one method of distributing indirect expense can be applicable to all cases, everything depending on the particular conditions of the plant.

Time would not permit me to attempt to describe in detail every method that may be employed, therefore, I will devote the time to those which are commonly used at the present time and which, as more or less standard methods, may be satisfactorily applied under definite conditions of manufacture. These are:

A—Prime Cost Method.

B—Productive Labor Cost Method.

C—Productive Labor Hour Method.

PRIME COST METHOD—Of all methods, the Prime Cost Method is considered the most simple. By this method, in order to obtain the proper percentage to be used, it is necessary only to take the total overhead expense and divided it by the total material and labor, the result being the percentage rate to be used.

For example, if during a definite period the amount expended for all direct material is $10,000 and for direct labor $20,000, the overhead expenses for the same period being $20,000, the percentage to be used in distributing overhead costs over the production would be ascertained as follows: Overhead cost, $20,000 divided by material cost, $10,000 plus labor cost, $20,000 equals 66 2/3%, the rate to be applied to the prime cost to cover the overhead cost on the article.

The only advantage of this method is its simplicity. The chief disadvantage is that in almost all cases some of the articles manufactured are burdened with too much overhead while others are not burdened with sufficient; all articles manufactured do not require the same operations, and accordingly some must bear a percentage of the overhead properly belonging to departments through which they do not pass.

PRODUCTIVE LABOR COST METHOD—The Productive Labor Cost Method is based upon the principle that indirect expenses are incurred in proportion to the cost of the labor involved.

To arrive at the proper percentage to be used, it is necessary only to divide the total amount of overhead expense for the period by the total cost of the direct labor for the period, the result showing the proportion of overhead expenses to the total productive labor in terms of percentage. The amount to be applied is then found by multiplying the direct labor cost by the percentage, the result to be added to the material and labor costs to obtain the total factory cost.

This method is simple and very widely used, and will often times prove satisfactory under the following conditions:

A—The labor should be the dominant element in the manufacturing process.

B—There should be a marked uniformity as to product, wages paid and time of operation on the article manufactured.

These conditions rarely exist throughout an entire factory, but if each department's overhead is distributed separately the method will prove to be quite accurate.

PRODUCTIVE LABOR HOURS METHOD—The principle of the Productive Labor Hours Method differs from the Productive Labor Cost Method only in that the amount of labor is measured by time and not by cost. That is to say, the overhead expenses of a plant are considered to be in proportion to the number of employees engaged and the hours they work rather than to the wages paid.

Owing to the difference in rates of wages paid to employees, the Labor Hours Method is applicable to a wider field than the Productive Labor Cost Method.

The rate to be used for applying the overhead to the product is determined as follows:

Total amount of factory overhead expense divided by total number of productive labor hours equals the rate per hour to be applied to the number of hours of work upon the product.

MACHINE RATE METHOD—Wherever the machinery is of more importance than the human element, and the workman is merely a tender or the tool of the machine, the machine rate plan is the most equitable method of distributing overhead expenses. On the other hand, if the machine is the secondary element either of the other described methods will probably prove more accurate.

In ascertaining the machine rate, the direct labor cost is obtained and also the number of operating hours. The material cost may also be combined with the direct labor and overhead cost before the machine rate is fixed, if the materials operated on are the same in grade or price. If grade or price varies, the material cost should not be included.

Expenses which are more or less fixed in character such as rent, insurance, taxes, etc., accumulate and are chargeable to a machine whether it is operated or not. These charges are usually applied upon the basis of floor space or valuation of the equipment. All charges so far as possible should be charged direct to the various machines, the balance of the indirect expenses which cannot be directly connected with machine operation should then be classified as follows:

A—Expenses that can be identified with certain departments.

B—General operating expenses for the plant as a whole.

Each department adds to its own departmental indirect expenses its share of the general operating expense and proceeds to distribute the total over its own product in accordance with the plan of expense distribution which seems best to fit the needs of the case.

For example, if the departmental costs are based on a unit of measure, the total indirect expense of the department is divided by the total units of output, giving the rate per unit. The rate so obtained is used to charge the machine or processes with their proportion of overhead by multiplying the number of units of product operated on in either case by the rate per unit.

If the costs are based on time, the departmental expense is divided by the total number of machine operating hours. This rate is added to the direct rate already established, giving the complete or final rate per hour to be charged to the product of that department.

After all indirect and general operating expenses have been applied to a machine, the formula for ascertaining the machine rate is as follows:

Total amount of productive labor plus total amount of overhead applicable to a machine, divided by the total of machine operating hours, equals the machine rate to be applied to product for each hour of machine operation.

Assuming that an article passes through several machine processes, its overhead cost is arrived at by multiplying the hours of each process and adding together the separate totals thus obtained. Material cost must then be added to the process cost to give the final cost.

The machine rate method can only be used when all operations are performed by machine. It cannot be applied to general bench work and miscellaneous forms of hand labor.

There are many other methods of distribution, but for the average manufacturing plant one of the four described above will apply satisfactorily and give accurate results.

Conditions in some plants may be so varied that it will be necessary to use from one to four of the above methods in order to obtain a fairly accurate distribution of overhead to the cost of articles manufactured.

There has been much discussion concerning the many mooted points both in the theory and in the practical procedures of cost accounting. It has been my purpose to treat only the well established and generally accepted principles and technique leaving to another a presentation of these mooted matters. Before closing, it should be stated that in all accounting work, regardless of fine points of theory involved in a given situation, practical considerations must always govern, if a full measure of satisfaction is to be secured.

(Note—The Cost Association recommends the machine rate method for the paper industry.—T. T. Burke)

Accident Prevention in Pulpwood Camps

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., August 23, 1926.—In the pulp and paper industry accident prevention has made steady advancement during recent years and a further step in this direction has been taken by the inclusion of all pulpwood-cutting camps operating on limits, owned or controlled by pulp and paper companies in Ontario, in the Pulp and Paper Class. These camps, therefore, will henceforth come under the supervision of the Ontario Pulp and Paper Makers' Safety Association, 811 Federal Building, Toronto.

Up to the beginning of 1926 all such camps were included in the lumbering classification of the Workmen's Compensation Board and were assessed at the rate applicable thereto. An arrangement has been come to between the Workmen's Compensation Board and the Ontario Pulp and Paper Makers' Safety Association whereby all pulpwood-cutting camps, operating on limits owned or controlled by pulp and paper companies, are transferred from Class 1 (lumbering) to Class 2 (pulp and paper).

The first fruits of such an arrangement are practical and beneficial to the pulp and paper industry, viz., provisional assessment for the current year has been reduced from $3 per $100 payroll and in small camps $5 per $100 payroll, to $1.75 per $100 payroll. Such a radical reduction in assessment was justified only by the fact that the camps will in the future be supervised as far as accidents are concerned. The continuance of such a low assessment rate depends on the amount of co-operation and energy the companies affected will assume in conjunction with the Ontario Pulp and Paper Makers' Safety Association in practical accident prevention work.

Subsequent to the arrangement entered into with the Workmen's Compensation Board a further arrangement was made with the Department of Medical Health, under Hon. Dr. Forbes Godfrey, whereby the pulp and paper industry secured the services of the Sanitation Branch of that department. The Sanitation Branch of the Department of Medical Health, under the supervision of Alex. R. White, Chief Sanitary Inspector, has a staff in the field whose duty it is to visit all camps in unorganized territory in Ontario in the interests of sanitation. It seemed the logical step to secure the services of these men who were visiting the camps anyway and to add to their duties the supervision of the accidents and first aid. Such an agreement has now been completed. These inspectors are rendering efficient service to the industry.

The movement outlined is not a move on the part of the Government or a department thereof to control the pulp and paper industry. If that were the case, the Ontario Pulp and Paper Makers' Safety Association say that they would have nothing to do with it; but it is a movement by the industry in co-operation with the Department of Medical Health for its own protection. No policies can be inaugurated by the Department and no instruction as far as accident prevention is concerned can be given to the field force, without such action first receiving the sanction of the Ontario Pulp and Paper Makers' Safety Association. All reports of accidents—all data bearing on accounts—will go through the office of the Association and all statistics will be compiled there. Up to the present the method of keeping accident records in the camps has been somewhat inconclusive; now, it is anticipated, that an accurate report of all such occurrences will be compiled and lessons learned that can be turned to the benefit of the industry.

ANNUAL CONFERENCE OF HAMMERMILL AGENTS AT ERIE

(*Continued from page 35*)

Those who attended the conference were:

J. A. Albrecht, Albrecht, Maguire & Mills, Buffalo, N. Y.

M. L. Kratz, The Alling & Cory Company, Buffalo, N. Y.

Alan Chandler and A. M. Smith, The Alling & Cory Company Pittsburgh, Penna.

B. E. Reeves, The Alling & Cory Company, Rochester, N. Y

Dr. Hugh P. Baker, American Paper and Pulp Association New York City.

D. F. McIntosh, American Paper Exports, Inc., New York City.

Ross P. Andrews and Wm. N. Schaefer, R. P. Andrews Paper Company, Washington, D. C.

Wm. H. Johns, W. F. Moore and M. Collette, George Batten Company., Inc., New York City.

R. L. Tillman, Beacon Paper Company, St. Louis, Mo.

Harold Helmer, Beecher Peck & Lewis, Detroit, Mich.

E. H. Taylor, Beekman Paper and Card Company., New York City.

John Imholz and W. J. Herrmann, E. A. Bouer Company, Milwaukee, Wis.

W. H. Lough and L. Butler, Business Training Corporation, New York City.

C. E. Roach, Capital City Paper Company, Springfield, Ill.

Geo. Carpenter, Jr., Carpenter Paper Company, Des Moines, Ia.

I. W. Carpenter, Jr., Carpenter Paper Company, Omaha, Neb.

H. L. Carter, Carter, Rice & Company, Boston, Mass.

W. E. Thornton, Caskie-Dillard Company, Lynchburg, Va.

A. R. Shaw, Jr., Caskie-Dillard Company, Charlotte, N. Car.

A. M. Miller, Central Ohio Paper Company, Columbus, O.

S. J. Hodgins, Central Topeka Paper Company, Topeka, Kan

Noble Gillette, Chicago Paper Company, Chicago, Ill.

F. E. Floyd, F. F. Fox and M. V. Wiggins, Crescent Paper Company, Indianapolis, Ihd.

A. S. Gow, Curtis Publishing Company, Philadelphia, Pa.

Edw. Joos, Jr., Diem & Wing Paper Company, Birmingham, Ala.

P. A. Struhlreyer and A. L. Brown, Diem & Wing Paper Company, Cincinnati, Ohio.

J. A. King, Dobler & Mudge, Baltimore, Md.

F. J. Weissinger, Dudley Paper Company, Lansing, Mich.

P. M. Duggan, Geo. Kuebel, J. R. Hauser and H. S. Wuenschel, Durico Paper Company, Erie, Penna.

E. R. Carpenter, Dwight Bros. Paper Company, Grand Rapids, Mich.

T. H. Epes, Epes-Fitzgerald Paper Company, Richmond, Va.

Geo. McKinney and A. C. Thomas, F. A. Flinn, Inc., New York City

Thos. Gregory, R. L. Greene Paper Company, Providence, R. I.

Fred Stutzman, Wm. R. Grazelle and Geo. Donovan, Holland Paper Company, Buffalo, N. Y.

Wm. H Howe, Wm. H. Howe, Buffalo, N. Y.

J. B. Binley, E. J. Cooper and S. T. Jones, Hudson Valley Paper Company, Albany, N. Y.

Albert Wittler, Irwin Paper Company, Quincy, Ill.

Walter Johnston, Johnston Paper Company, Harrisburg, Penna.

E. R. Jones, Kansas City Paper House, Kansas City, Mo.

E. V Johnson, E. L. Wood and N. J. Patterson, P. P. Kellogg and Company., Division, Springfield, Mass.

S. Lathrop, Lasher & Lathrop, Inc., New York City.

A. W Leslie and D. S. Leslie, John Leslie Paper Company, Minneapolis, Minn.

W. H. Stuart, Henry Lindenmeyer & Sons, New York City.

C. M. Bleke, Mack-Elliott Paper Company, St. Louis, Mo.

W. C. Merzwiler, Miller Paper Company, Louisville, Ky.

W. E. Sayle, National Envelope Company, Waukegan, Ill.

W. G. Cleveland, E. C. Palmer & Co., Ltd., New Orleans, La.

Thos. J. Keenan, The Paper Industry, New York City.

E. A. Petrequin, Petrequin Paper Company, Cleveland, O.

J. G. Boshart, Peyton Paper Company, Duluth, Minn.

Thos. R. Fort, Jr., Thos. W. Price Company, Philadelphia, Penna.

W. A. Rhodes, S. P. Richards Company, Atlanta, Ga.

E. C. Mead, Richmond Paper Company, Richmond, Va.

John McCracken, Riegel & Co., Inc., Philadelphia, Penna.

W. H. Rourke, Rourke-Eno Paper Company, Hartford, Conn.

Carl Lincoln and R. S. Bull, Bradner Smith & Company, Chicago, Ill.

G. R. Likins, Springfield Paper Company, Springfield, Mo.

GROUP PICTURE TAKEN AT CONFERENCE OF HAMMERMILL AGENTS

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Pulp and Paper Mill Machinery
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Geo. L. Webb, Storrs & Bement Company, New Haven, Conn.

Geo. Gould and John D. Swigart, Swigart Paper Company, Chicago, Ill.

Geo. Van Alstyne and J. D. Keating, Troy Paper Coporation, Troy, N. Y.

Joe Rothman, Underwood & Underwood, New York City..

J. Nacht, Union Card & Paper Company, New York City.

R. L. Allison, U. S. Envelope Company, Sprinfield, Mass.

C. R. Smith, Van Reed Paper Company, Reading, Penna.

Allen C. Damon and R. Vernon,, Paul E. Vermon & Co., New York City.

C. C. Walden, Jr., Walden Sons & Mott, Inc., New York City.

George W. Ward and W. W. Seary, D. L. Ward Company, Philadelphia, Penna.

Chas Verity, Western Newspaper Union, Lincoln, Neb.

J. B. Jones and Geo. S. Johnston, Western Newspaper Union, Omaha, Neb.

Mark D. Wilson, R. D. Wilson Sons & Company, Clarksburg, W. Va.

E. A. McGrath, Zellerbach Paper Company, New York City.

Program of TAPPI Fall Meeting

The subjects to be discussed at the morning sessions of the Fall Meeting of TAPPI at York, Pa., September 14, 15 and 16, as arranged by the committee, are as follows:

SEPTEMBER 14

Up-to-date Methods of Washing Chemical Pulp—Sulphite Soda and Sulphate.

Recovery of the Waste Liquors in Chemical Pulp Mills.

Utilization of the Products of Distillation.

Advantage of Refrigeration in Pulp and Paper Mills.

SEPTEMBER 15

Waste in the Industry and Stream Pollution

Efficiency Data of Various Types of Stock Savers.

SEPTEMBER 16

Deinking and Washing Reclaimed Paper Stock.

Control of Beater Furnish for Book Paper.

Advantage of Uniformity in Hardness of Rubber Covered Press Rolls..

The attendance of all interested in pulp and paper manufacture will be welcomed. Those planning to do so should advise Horace Keesey, York, Pa., secretary of the committee in charge of arrangements, as soon as possible.

Pacific Wood Pulp Co. Formed

PORTLAND, Ore., August 26, 1926.—The Pacific Wood Pulp, Inc., is the name of a new company which filed articles of incorporation in the office of the county auditor in Cowlitz county, Washington, August 19. Charles F. Schaub, president of the Pacific Straw Paper and Board company of Longview, is one of the incorporators; others are George Sweet of the same company, A. T. Peterson and H. L. Copeland.

This company is incorporated for $600,000, consisting of 100,000 shares of common stock of $ par value, and 100,000 shares of 8 per cent cumulative stock of $5 par value.

The site of the new mill has not been definitely established but it is known that the owners plan to make it a pulp plant of 30 tons capacity. It will make ground wood pulp and will represent an investment in the property of $375,000. Eastern capital was brought into the project that the organization might be achieved at this time.

Mr. Schaub states that the Pacific Straw Paper and Board Company which began operations a few months ago in Longview, has been compelled to turn down many orders for heavy board because it could not procure the necessary wood pulp. Consequently it is expected that the bulk of the output of the new mill will be used by the Pacific Straw Paper and Board company, whether the plant is located at Longview, Kelso or other point in the vicinity.

Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., September 1, 1926.—The Bureau of Supplies & Accounts, Navy Department, will receive bids on September 14 for 6,000 rolls of paper towels for the San Diego, Cal. navy yard.

The Post Office Department has received the following bids for 500,000, 4 x 7½ manila tag board cards; R. P. Andrews Paper Company, at 97 cents per 1,000; Whitaker Paper Company, 97 cents; Hano-Weinkrantz Company, 99 cents; Reese & Reese $1.72; International Tag Company, $1.20; and $1.33; Dennison Manufacturing Company, $1.41; E. A. Gimbel, 95 cents; Dobler & Mudge, 93½ cents; and Garrett Buchanan Company, 90 cents.

The Mathers-Lamm Paper Company has been awarded the contract for furnishing the Government Printing Office with 40,000 pounds (40,000 sheets) of various sizes No. 50 chip board at $36.25 per ton, bids for which were received on July 28.

The Whitaker Paper Company has been awarded the contract for furnishing the Government Printing Office with 80,000 pounds (32,000 sheets) of No. 2 quality, 25 x 30, No. 20 binders board at $68.00 per ton, bids for which were received on August 2.

The R. A. Cauthorne Paper Company will furnish 40,000 pounds of 14½ x 17½, 35 wood manila tag board at 4.49 cents per pound, bids for which were recived on August 9.

Government Printing Office Receives Bids

The Government Printing Office has received the following bids for 38,450 pounds of various sizes double coated both sides book paper; Old Dominion Paper Company, at 13.74 cents per pound; R. P. Andrews Paper Company, 12.72 cents; Allied Paper Mills, 12.69 cents; Dobler & Mudge, 13 cents; Mathers-Lamm Paper Company, 12.5 cents; and Reese & Reese, 13.25 cents.

The Printing Office has also received the following bids for 80,000 pounds of 25 x 30 No. 20 binders board; R. P. Andrews Paper Company, at $68.24 per ton; Mathers-Lamm Paper Company, $90.00; Barton, Duer & Koch Paper Company, $68.25; Whitaker Paper Company, $68.00; and Maurice O'Meara Company, at $69.80.

The following bids were also received for 3,000 pounds of 17 x 28, manila cardboard; Mathers-Lamm Paper Company, at 5.5 cents per pound and Whitaker Paper Company, at 5.87 cents.

Technical Convention To Be Large

From the number of advance registration, the attendance at the Fall Meeting of TAPPI in York, Pa., September 14, 15 and 16, will be large.

The Local Committee requests that all those who are planning to attend send in their reply cards as early as possible so that the necessary arrangements can be made.

Among those will be guests of the Association are Hugh P. Baker, secretary of the American Paper and Pulp Association, and A. M. Miller, president of the National Paper Trade Association.

English Capital Now Coming

MONTREAL, Que., July 19, 1926.—Since the war there has been very little capital coming to this country from England, but with the restoration of exchange to around par the flow is now being resumed.

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING AUGUST 28, 1926

SUMMARY

Cigarette paper .....179 cs.
Wall paper .....6 bls., 30 cs.
Paper hangings..305 rolls, 38 bls., 29 pkgs., 12 cs.
News print .....30 rolls
Printing paper .....576 bls., 220 cs.
Wrapping paper.....512 rolls, 40 webs, 50 bls.
Packing paper .....46 bls., 17 cs.
Writing paper .....85 cs.
Envelopes .....47 cs.
Tissue paper .....22 cs.
Photo paper .....10 cs.
Surface coated paper .....34 cs.
Metal coated paper .....11 cs.
Pergamyn paper .....57 cs.
Stencil paper .....26 cs.
Silk paper .....10 bls., 10 cs.
Straw board .....1808 rolls
Miscellaneous paper.....639 rolls, 31 bls., 94 cs.

CIGARETTE PAPER

P. J. Schweitzer, La Savoie, Havre, 25 cs.
Standard Products Corp., La Savoie, Havre, 53 cs.
Miguel, Costas & Miguel, Canada, Barcelona, 3 cs.
Zorro Tobacco Co., Canada, Lisbon, 30 cs.
P. J. Schweitzer, Pres. Monroe, Marseilles, 46 cs.
Max Spiegel & Sons, C. Biancamano, Genoa, 22 cs.

WALL PAPER

Keller-Dorian Paper Co., Aquitania, Southampton, 15 cs.
Thomas & Pierson, Aquitania, Southampton, 1 cs.
A. C. Dodman, Jr., Inc., Franconia, Liverpool, 2 bls.
F. J. Emmerich, Franconia, Liverpool, 2 bls.
Chas. Grimmer & Son, Hamburg, Hamburg, 4 cs.
F. J. Emmerich, Hamburg, Hamburg, 1 ble.
F. J. Emmerich, Minnetonka, London, 3 cs.
H. F. Downing & Co., Minnetonka, London, 1 ble.
H. Glass & Co., Berengaria, Southampton, 7 cs.

PAPER HANGINGS

Whiting & Patterson Co., Aquitania, Southampton, 2 cs.
A. C. Dodman, Jr., Inc., Franconia, Liverpool, 4 bls.
W. H. S. Lloyd & Co., Franconia, Liverpool, 11 bls.
W. H. S. Lloyd & Co., Minnetonka, London, 23 bls., 10 cs.
Whiting & Patterson Co., London Exchange, London, 29 pkgs.
Meadows, Wye & Co., Lancastria, Hamburg, 305 rolls.

NEWS PRINT

Hudson Trading Co., Lancastria, Hamburg, 30 rolls.

PRINTING PAPER

Public National Bank, Sangamon, Marseilles, 13 cs.
E. Dietzgen & Co., Volendam, Rotterdam, 30 cs.
J. P. Heffernan Paper Co., Volendam, Rotterdam, 11 bls.
Japan Paper Co., Volendam, Rotterdam, 16 cs.
Irving Bank-Columbia Trust Co., Lancastria, Hamburg, 221 bls.
Perkins, Goodwin & Co., Lancastria, Hamburg, 80 cs.
P Puttman, Zeeland, Antwerp, 30 cs.
B. F. Drakenfeld & Co., Franconia, Liverpool, 22 cs.
Irving Bank-Columbia Trust Co., Hamburg, Hamburg, 161 bls.
W. Hartman & Co., Hamburg, Hamburg, 183 bls.
Martin & Bechtold, Derfflinger, Bremen, 11 cs.
E. Dietzgen & Co., N. Amsterdam, Rotterdam, 18 cs.

WRAPPING PAPER

Arkell Safety Bag Co., Drottningholm, Gothenburg, 94 rolls.
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Fidelity Trust Co., Hamburg, Hamburg, 418 rolls.
Stewart Hartshorn & Co., Caledonia, Glasgow, 40 webs.

PACKING PAPER

Judson Freight Forwarding Co., Aquitania, Southampton, 10 cs.
Hensel, Bruckman & Lorbacher, Hamburg, Hamburg, 38 bls.
Steffens, Jones & Co., N. Amsterdam, Rotterdam, 7 cs., 8 bls.

PAINT PAPER

H. Glass & Co., De Grasse, Havre, 4 cs.

WRITING PAPER

Guibout freres, Aquitania, Southampton, 5 cs.
American Express Co., Aquitania, Southampton, 1 cs.
F. C. Strype, Aquitania, Southampton, 7 cs.
F. L. Kramer & Co., Minnetonka, London, 3 cs.
Guibout freres, Majestic, Southampton, 12 cs.
Coenca, Morrison & Co., De Grasse, Havre, 10 cs.
Japan Paper Co., De Grasse, Havre, 12 cs.
Republic Bag & Paper Co., N. Amsterdam, Rotterdam, 34 cs.
S. Stern, Geo. Washington, Bremen, 1 cs.

WRITING PAPER AND ENVELOPES

Jas. A. Hearn & Co., Minnetonka, London, 1 cs.

ENVELOPES

H. Reeve Angel & Co., Inc., Minnetonka, London, 6 cs.
Globe Shipping Co., Derfflinger, Bremen, 41 cs.

TISSUE PAPER

S. Gilbert, Volendam, Rotterdam. 12 cs.
F. C. Strype, Franconia, Liverpool, 10 cs.

PARCHMENT PAPER

S. Gilbert, Volendam, Rotterdam, 1 cs.
O. G. Hempstead & Co., Volendam, Rotterdam, 1 cs.

CARDS

H. Reeve Angel & Co., Inc., Minnetonka, London, 5 cs.

PHOTO PAPER

T. F. Wilmot, Aquitania, Southampton, 6 cs.
J. J. Gavin, Franconia, Liverpool, 4 cs.

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Whiting & Patterson Co., Lancastria, Hamburg, 19 cs.
Hensel, Bruckman & Lorbacher, Hamburg, Hamburg, 1 cs.
Phoenix Shipping Co., Hamburg, Hamburg, 14 cs.

METAL COATED PAPER

Hensel, Bruckman & Lorbacher, Hamburg, Hamburg, 11 cs.

BARYTA COATED PAPER

Globe Shipping Co., G. Washington, Bremen, 4 cs.

PERGAMYN PAPER

F. C. Strype, Hamburg, Hamburg, 57 cs

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Fuchs & Lang Manfg. Co., Muenchen, Bremen, 1 cs.

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C. W. Sellers, Muenchen, Bremen, 6 cs.
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F. Henjes, Jr., Inc., Muenchen, Bremen, 1 cs.
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Arlac Dry Stencil Co., Hamburg, Hamburg, 26 cs.

SILK PAPER

Equitable Trust Co., W. Plains, Antwerp, 10 bls.
S. Gilbert, Gaasterdyk, Rotterdam, 10 cs.

PAPER TUBES

H. de Maguinn, La Savoie, Havre, 8 cs.

STRAW BOARD

Order, Volendam, Rotterdam, 216 rolls.
Schiffenhaus Bros., Volendam, Rotterdam, 200 rolls.
A. Vuyk, Volendam, Rotterdam, 757 rolls.
A. Vuyk, N. Amsterdam, Rotterdam, 87 rolls.
State Bank, N. Amsterdam, Rotterdam, 274 rolls.
State Bank, Gaasterdyk, Rotterdam, 274 rolls.

MISCELLANEOUS PAPER

C. K. MacAlpine & Co., Drottningholm, Gothenburg, 356 rolls.
E. H. Sergeant & Co., Drottningholm, Gothenburg, 4 cs.
Japan Paper Co., La Savoie, Havre, 6 cs.
Wilkinson Bros. & Co., Inc., Zeeland, Antwerp, 31 bls.
Tice & Lynch, Minnetonka, London, 2 cs.
National City Bank, Minnetonka, London, 283 rolls.
Perry, Ryer & Co., Caledonia, Glasgow, 58 cs.
A. Flinn & Co., De Grasse, Havre, 9 cs.
Kadri Bros., De Grasse, Havre, 12 cs.
Keller-Dorian Paper Co., Berengaria, Southampton, 3 cs.

RAGS, BAGGINGS, ETC.

State Bank, Sangamon, Marseilles, 105 bls. rags.
A. W. Fenton, Inc., Pipestone County, Havre, 14 bls. rags.
V. Galaup, Pipestone County, Havre, 234 bls. rags.
General Fiber Co., Pipestone County, Havre, 53 bls. rags.
Atterbury Bros., Inc., Pipestone County, Havre, 32 bls. rags.
Robert Blank, Volendam, Rotterdam, 188 bls. rags.
E. J. Keller Co., Inc., Volendam, Rotterdam, 54 bls. rags.
The Stone Bros. Co., Inc., Volendam, Rotterdam, 40 bls. rags.
Chemical National Bank, Lancastria, Hamburg, 19 bls. rags.
Royal Manfg. Co., Livenza, Genoa, 44 bls. bagging.
Bowery-East River Natl. Bank, Livenza, Genoa, 219 bls. rags.
Equitable Trust Co., Livenza, Naples, 280 bls. rags.
Chase National Bank, Livenza, Naples, 162 bls. rags.
A. W. Fenton, Inc., Muenchen, Bremen, 113 bls. rags.
B. D. Kaplan, Muenchen, Bremen, 64 bls. rags.
Royal Manfg. Co., Zeeland, Antwerp, 23 bls. cotton waste.
Equitable Trust Co., Zeeland, Antwerp, 49 bls. thread waste.
Chase National Bank, Malmen, Leningrad, 390 bls. rags.
Atterbury Bros., Inc., Hamburg, Hamburg, 124 bls. rags.
A. W. Fenton, Inc., Hamburg, Hamburg, 106 bls. rags.
M. Maier, Hamburg, Hamburg, 152 bls. rags.
M. Snedeker, Hamburg, Hamburg, 3 bls. rags.
Brown Bros. & Co., Minnetonka, London, 21 bls. rags.
Amsinck, Sonne & Co., Inc., Minnetonka, London, 28 bls. rags.
W. Barnett Sons, London Exchange, London, 15 bls. rags.
A. H. Searle, London Exchange, London, 295 bls. rags.
S. Silberman & Co., London Exchange, London, 627 bls. rags.
Equitable Trust Co., H. Olav, Copenhagen, 600 bls. rags.
Anglo-South American Trust Co., H. Olav, Copenhagen, 667 bls. bagging.
National City Bank, H. Olav, Copenhagen, 1000 bls. bagging.
E. J. Keller Co., Inc., Carlier, Antwerp, 96 bls. bagging.
Anglo-South American Trust Co., Carlier, Antwerp, 39 bls. rags.
State Bank, Carlier, Antwerp, 19 bls. rags.
Castle & Overton, Inc., Muenchen, Bremen, 57 bls. thread waste.
Royal Manfg. Co., Bannack, Manchester, 50 bls. cotton waste.
I. Cohen & Co., Inc., Bannack, Manchester, 127 bls. rags.
Vacuum Co., Bannack, Manchester, 51 bls. bagging.
Chase National Bank, Bannack, Belfast, 56 bls. rags.
Chemical National Bank, Derfflinger, Bremen, 94 bls. rags.
Central National Bank, Derfflinger, Bremen, 84 bls. rags.
Irving Bank-Columbia Trust Co., Derfflinger, Bremen, 48 bls. rags.
A. W. Fenton, Inc., Derfflinger, Bremen, 16 bls. rags.
E. J. Keller Co., Inc., Liberty Land, Genoa, 64 bls. bagging.
National Bank of Commerce, Liberty Land, Leghorn, 145 bls. rags.

(*Continued on page 74*)

Imports of Paper and Paper Stock

(*Continued from page 73*)

A. W. Fenton, Inc., Liberty Land, Leghorn, 3 bls. rags.
The Barrett Co., Liberty Land, Leghorn, 115 bls. rags.
Equitable Trust Co., Liberty Land, Leghorn, 74 bls. rags.
Royal Manfg. Co., W. Plains, Antwerp, 59 bls. rags.
M. Maier, W. Plains, Antwerp, 55 bls. rags.
G. W. Millar & Co., Skaneland, Marseilles, 67 bls. rags.
E. J. Keller Co., Inc., Skaneland, Marseilles, 44 bls. rags.
Sterling Mill Supply Co., Skaneland, Marseilles, 160 bls. rags.
The Barrett Co., Skaneland, Marseilles, 251 bls. rags.
Chatham & Phoenix Natl. Bank, N. Amsterdam, Rotterdam, 95 bls. bagging.
The Stone Bros. Co., Inc., N. Amsterdam, Rotterdam, 54 bls. rags.
Carolina Bagging Co., Gaasterdyk, Rotterdam, 552 bls. bagging.
Maurice O'Meara Co., Gaasterdyk, Rotterdam, 36 bls. cotton waste.
G. W. Millar & Co., Gaasterdyk, Rotterdam, 201 bls. rags.
Bulkley, Dunton & Co., Gaasterdyk, Rotterdam, 307 bls. bagging.
E. J. Keller Co., Inc., Gaasterdyk, Rotterdam, 91 bls. rags.
National Bank of Commerce, Gaasterdyk, Rotterdam, 48 bls. rags.

OLD ROPE

Bulkley, Dunton & Co., Volendam, Rotterdam, 13 coils.
Brown Bros. & Co., Volendam, Rotterdam, 109 coils.
International Purchasing Co., Randsfjord, Oslo, 61 coils.
Brown Bros. & Co., Randsfjord, Oslo, 49 coils.
Brown Bros. & Co., Pres. Wilson, Trieste, 26 rolls.
The Stone Bros. Co., Inc., Livenza, Oran, 22 coils.
Brown Bros. & Co., N. Amsterdam, Rotterdam, 149 coils.
Bulkley, Dunton & Co., Gaasterdyk, Rotterdam, 76 coils.
E. J. Keller Co., Inc., Gaasterdyk, Rotterdam, 46 coils.
Castle & Overton, Inc., American Trader, London, 14 bls.

MANILA ROPE

Ellermans' Wilson Line, Minnetonka, London, 49 coils.

WOOD FLOUR

A. Kramer & Co., Inc., Volendam, Rotterdam, 800 bags.
Corn Exchange Bank, Randsfjord, Flekkefjord, 400 bags, 20,200 kilos.

WOOD PULP

M. Gottesman & Co., Inc., Lancastria, Hamburg, 1764 bls. sulphite, 272 tons.
Irving Bank-Columbia Trust Co., Lancastria, Hamburg, 365 bls. sulphite, 55 tons.
Banco Com'l Italiana, Lancastria, Hamburg, 167 bls. sulphite.
National City Bank, Lancastria, Hamburg, 500 bls. wood pulp, 100 tons.
Buck, Kiaer & Co., Inc., Randsfjord, Greaker, 3500 bls. unbleached sulphite.
Buck, Kiaer & Co., Inc., Randsfjord, Greaker, 250 bls. bleached sulphite.
D. M. Hicks, Inc., Pres. Wilson, Trieste, 1282 bls. wood pulp.
American Exchange Pacific National Bank, Muenchen, Bremen, 1250 bls. wood pulp.
Castle & Overton, Inc., Drottningholm, Gothenburg, 1219 bls. sulphite.
J. Anderson & Co., Drottningholm, Gothenburg, 250 bls. sulphite.
Lagerloef Trading Co., Drottningholm, Gothenburg, 254 bls. sulphate.
Scandinavian Pulp Agency, Inc., Drottningholm, Gothenburg, 127 bls. sulphate.
Johanson, Wales & Sparre, Inc., Drottningholm, Gothenburg, 335 bls. dry soda pulp.
Scandinavian Pulp Agency, Inc., Malmen, Sundsvall, 1200 bls. sulphite.
Scandinavian Pulp Agency, Inc., Malmen, Sundsvall, 2500 bls. sulphate.
Bulkley, Dunton & Co., Malmen, Sundsvall, 2250 bls. chemical pulp.
Tidewater Papermills Co., Kilmarnock, Liverpool, N. S., 6109 bls. wood pulp, 610 tons.
Buck, Kiaer & Co., Inc., H. Olav, Greaker, 250 bls. bleached sulphite.
Buck, Kiaer & Co., Inc., H. Olav, Greaker, 1000 bls. unbleached sulphite.
Buck, Kiaer & Co., Inc., H. Olav, Oslo, 200 bls. unbleached sulphite.
Castle & Overton, Inc., Derfflinger, Bremen, 747 bls. wood pulp.
H. Hollesen, Inc., Eilbek, Koenigsberg, 4060 bls. sulphite, 812 tons.

WOOD PULP WADDING

Birn & Wachenheim, N. Amsterdam, Rotterdam, 50 bls.
Birn & Wachenheim, Volendam, Rotterdam, 100 bls.

CASEIN

Jungman & Co., Alaska, Havre, 266 bags.
M. E. Clarendon & Co., Vinland, Buenos Aires, 250 bags.
National City Bank, Vauban, Buenos Aires, 371 bags.

CHINA CLAY

J. Richardson & Co., Uranienborg, Fowey, 349 tons, 8 cwt.
Atlantic National Bank, Uranienborg, Fowey, 949 tons, 17 cwt.
J. W. Higman Co., Inc., Uranienborg, Fowey, 1306 tons, 19 cwt.
Papermakers Import Co., Uranienborg, Fowey, 525 tons, 1 cwt.
National City Bank, Boston City, Bristol, 200 bags.
C. T. Wilson & Co., Boston City, Bristol, 30 casks.

NEW ORLEANS IMPORTS

WEEK ENDING AUGUST 28, 1926

Castle & Overton, Inc., Stureholm, Belgium, 380 bls. rags.
E. J. Keller Co., Inc., Oakwood, Bremen, 67 bls. rags.

PORTLAND, ME., IMPORTS

WEEK ENDING AUGUST 28, 1926

The Borregaard Co., Inc., Randsfjord, Sarpsborg, 4050 bls. sulphate, 678 tons.
Waterfalls Paper Mills, Randsfjord, Sarpsborg, 894 bls. sulphite, 150 tons.

PHILADELPHIA IMPORTS

WEEK ENDING AUGUST 28, 1926

Equitable Trust Co., Sangamon, Marseilles, 284 bls. rags.
Brown Bros. & Co., Sangamon, Marseilles, 132 bls. rags.
Philadelphia Girard National Bank, Livenza, Naples, 93 bls. rags.
The Stone Bros. Co., Inc., Livenza, Oran, 443 bls. rags.
Brown Bros. & Co., London Exchange, London, 103 coils old rope.
Chase National Bank, London Exchange, London, 47 bls. rags.
J. A. Steer & Co., London Exchange, London, 126 bls. rags.
G. M. Graves & Co., London Exchange, London, 89 bls. rags.
Union National Bank, London Exchange, London, 169 bls. rags.
Strupp & Co., Liberty Land, Genoa, 45 bls. rags.
D. I. Murphy, Liberty Land, Leghorn, 90 bls. cotton waste.
Southwark National Bank, Liberty Land, Leghorn, 121 bls. cotton waste.
Philadelphia Girard National Bank, Liberty Land, Leghorn, 572 bls. rags.
D. I. Murphy, W. Plains, Antwerp, 413 bls. rags.
A. H. Searle, W. Plains, Antwerp, 223 bls. rags.
The Stone Bros. Co., Inc., W. Plains, Antwerp, 372 bls. rags.
E. J. Keller Co., Inc., W. Plains, Antwerp, 217 bls. rags.
A. W. Fenton, Inc., W. Plains, Antwerp, 61 bls. rags.
Maurice O'Meara Co., W. Plains, Antwerp, 64 bls. rags.
MacBlaine & Co., W. Plains, Antwerp, 45 bls. rags.
S. Birkenstein & Sons, W. Plains, Antwerp, 111 bls. rags.
S. Birkenstein & Sons, W. Plains, Antwerp, 45 bls. bagging.
F. Weber & Co., W. Plains, Antwerp, 42 cs. paper.
Robert Blank, Skaneland, Marseilles, 538 bls. rags.
Salomon Bros. & Co., Skaneland, Marseilles, 141 bls. rags.
E. J. Keller Co., Inc., Skaneland, Marseilles, 267 bls. rags.
Philadelphia Girard National Bank, Skaneland, Leghorn, 241 bls. rags.
M. Gottesman & Co., Inc., Gustavsholm, Stockholm, 2100 bls. wood pulp.
Robert Blank, Lehigh, London, 376 bls. rags.
Castle & Overton, Inc., Yorck, Bremen, 854 bls. wood pulp.
Castle & Overton, Inc., Tomalva, Antwerp, 410 bls. rags.
Castle & Overton, Inc., Juf. Maru, Hamburg, 115 bls. rags.
Castle & Overton, Inc., Sachenwald, Hamburg, 42 bls. rags.
Castle & Overton, Inc., Sommelsayk, Belgium, 251 bls. rags.
E. J. Keller Co., Inc., Alaska, Havre, 408 bls. rags.
E. J. Keller Co., Inc., Tomalva, Antwerp, 88 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING AUGUST 28, 1926

Congoleum Nairn Co., W. Plains, Antwerp, 264 bls. bagging.
Congoleum Nairn Co., W. Plains, Antwerp, 179 bls. rags.
E. Butterworth & Co., Inc., W. Plains, Antwerp, 32 bls. rags.
Leshner Paperstock Co., W. Plains, Antwerp, 309 bls. bagging.
National City Bank, W. Plains, Antwerp, 144 bls. rags.
R. F. Hammond, Inc., Washington Maru, Hamburg, 330 bls. sulphite pulp.
M. Gottesman & Co., Inc., Modig, Stockholm, 6822 bls. wood pulp.
Castle & Overton, Inc., Hameln & Yorck, Bremen, 2204 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING AUGUST 28, 1926

Moore & Munger, Neotsfield, Fowey, 200 cks. china clay, 100 tons.
Moore & Munger, Neotsfield, Fowey, 308 tons, 19 cwt. china clay.
English China Clay Sales Corp., Neotsfield, Fowey, 1065 cks. china clay, 532 tons.
English China Clay Sales Corp., Neotsfield, Fowey, 3644 tons, 19 cwt. china clay.
Atlantic National Bank, Neotsfield, Fowey, 1451 tons, 3 cwt. china clay.
Atlantic National Bank, Neotsfield, Fowey, 150 cks. china clay, 75 tons.
J. Richardson & Co., Neotsfield, Fowey, 966 tons, 8 cwt. china clay.
J. Richardson & Co., Uranienborg, Fowey, 966 tons, 8 cwt. china clay.
J. Richardson & Co., Uranienborg, Fowey, 100 cks. china clay, 50 tons.
Atlantic National Bank, Uranienborg, Fowey, 1475 tons, 3 cwt. china clay.
V. Galaup, Pipestone County, Havre, 370 bls. rags.
G. M. Graves Co., Pipestone County, Havre, 100 bls. bagging.
1st National Bank of Boston, Pipestone County, Havre, 88 bls. cotton waste.
H. Hollesen, Inc., West Harcuvar, Hamburg, 146 bls. sulphite pulp, 26 tons.
E. J. Keller Co., Inc., West Harcuvar, Hamburg, 90 bls. rags.
E. J. Keller Co., Inc., West Harcuvar, Bremen, 101 bls. rags.
E. J. Keller Co., Inc., Sommelsdyk, Amsterdam, 146 bls. bagging.

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New York Market Review

Office of THE PAPER TRADE JOURNAL,
Wednesday, August 25, 1926.

While trading in the local paper market during the past week was mostly along routine lines, business is confidently expected to expand from now on, until the end of the year, at least. The various grades of paper continue to be in good demand and prices are being maintained in most instances. Kraft paper, in particular, is in excellent request, and slight advances have been recorded on both No. 2 Domestic and Southern Kraft. Inquiries are also becoming more spirited and the outlook is considered to be promising by most observers of the market.

Conditions in the news print market are quite satisfactory, and offerings continue to be readily absorbed. Shipments against contract are going forward in good volume. The spot market is showing signs of increased activity, and consumers are finding that stocks on hand are decidedly limited. Prices are holding up to schedule and are expected to become much firmer when the fall demand reaches its greatest height.

The improvement reported in the paper board market is being maintained in a satisfactory manner and production is being accelerated to keep pace with consumption. The position of the fine paper market is sound, with quotations holding up to previously reported levels. The demand for tissues is also holding up very well. No new developments have transpired in the coarse paper market. Summer specialties are still being called for in good volume, and the demand for wrapping paper is heavy.

Mechanical Pulp

There is very little new to say about the ground wood market. Both domestic and imported mechanical pulp is going forward into consumption at a normal rate. Trading in the spot market has been decidedly quiet of late. The current production is apparently quite sufficient to take care of the prevailing demand. Quotations on both imported and domestic ground wood are unaltered.

Chemical Pulp

Contract withdrawals of chemical pulp are moving into consumption at a normal rate. The spot demand is gradually growing more persistent, and prices are steadier than for some time past. Advances have been recorded on the imported product. Scandinavian bleached sulphite is now quoted at from 3.75 to 4.50 cents a pound, while No. 1 strong unbleached sulphite has risen to from 2.95 to 3.75 cents a pound. No. 1 kraft sulphite is offered at from 2.95 to 3.10 cents a pound, ex dock, Atlantic ports. Other quotations remain unchanged at previously reported levels.

Old Rope and Bagging

Domestic old rope is in fairly good demand and a moderate volume of inquiries are being received on account of future business. The foreign old rope market is rather quiet at present. The various grades of bagging are beginning to arouse more interest and a decided improvement is predicted when autumn activities get under way. Prices are fairly steady on the whole.

Rags

Trading in the local rag market improved slightly during the past week. Domestic rags are reported to be in better request than of late, and there is also a better feeling in the imported rag market. Roofing rags continue to be in good demand at previously quoted prices. Inquiries for mixed khaki and pink corset cuttings are being received in good volume. Prices in most sections of the local rag market are holding up very well.

Waste Paper

With collections of waste paper still below normal, quotations rule steady to firm. Inquiries from the board mills are coming to hand in increased volume, and the market should undoubtedly become more active now that the autumn season is near at hand. Old kraft and No. 1 mixed paper are in particularly good request at present, while there is also an excellent call for most of the other grades.

Twine

No radical changes have transpired in the twine market. Business appears to be improving to some extent, and the market should become much stronger within the next few weeks, now that the holidays are practically over. Quotations are still considered to be lower than warranted by basic conditions and some revision upwards may be expected at any time, in the opinion of competent observers of the market.

R. S. Kellogg and W. G. MacNaughton End Long Tour

After covering no less than 6,270 miles by automobile, and more than 1,000 miles by rail, in a little over nine weeks, R. S. Kellogg, secretary of the News Print Service Bureau, and W. G. MacNaughton, secretary of the Technical Association of the Pulp and Paper Industry, returned to New York last Saturday from a long and comprehensive inspection tour of the western and Canadian paper and pulp mills.

Mr. Kellogg and Mr. MacNaughton inspected fifty pulp and paper mills in Wisconsin, Minnesota, north Michigan, Manitoba, Ontario, western Quebec, and northern New York. They made a special study of new equipment and processes, and labor saving devices, and also paid much attention to the important question of the elimination of waste in the paper mills. It is interesting to note that no mill of any consequence was visited where major improvements were not going on, which is a bright augury for the future of the industry.

Forestry operations in the Itasca State Park, Minnesota, the Minnesota National Forest, and the Cloquet Forest Experimental Station, was also witnessed with great interest by Mr. Kellogg and Mr. MacNaughton.

R. P. Stevens Goes With Quaker Hill Paper Co.

NEW HAVEN, Conn., September 2, 1926.—Robert P. Stevens, formerly superintendent of the National Folding Box Company of this city has become part owner and superintendent of the Quaker Hill Paper Company whose office is at 312 Exchange Building this city and whose plant is at Quaker Hill, Conn. The Quaker Hill Paper Company is now engaged in making colored specialities.

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Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, September 1, 1926.

Only a moderate amount of new business was transacted in the local chemical market during the past week. However, now that the vacation period is drawing to a close, trading will undoubtedly prove more active from now on. Shipments against contract continue to go forward in excellent volume and the record for the past month compares favorably with the returns for the corresponding period a year ago. Prices are generally holding up to schedule and reports of concessions are infrequent.

BLANC FIXE.—No further changes have transpired in the blanc fixe market. The demand for both the pulp and the powder is rather light at present and new business is very scarce. Prices are holding up to former levels. The pulp is still quoted at $56 a ton, in bulk, and the powder is selling at from 4 to 4¼ cents a pound, in barrels, at works.

BLEACHING POWDER.—Supplies of bleaching powder are still moving into consumption at a good rate. Surplus stocks are reported to be rather limited and prices are being well maintained. Bleaching powder is quoted at from $2 to $2.40 per 100 pounds, in large drums, at works, according to quantity.

CASEIN.—Demand for casein is fairly persistent and prices have advanced half a cent on both the domestic and imported product. Offerings are about sufficient to take care of current requirements. Domestic casein is now quoted at from 16½ to 19 cents a pound, and imported casein is selling at from 17½ to 19 cents a pound.

CAUSTIC SODA.—Contract shipments of caustic soda are moving into consumption in a satisfactory manner. While production is proceeding on a large scale, the output is being readily absorbed. Caustic soda is being offered at from $3.10 to $3.15 per 100 pounds, in large drums, at works. Spot car lots are selling at from $3.20 to $3.25 per 100 pounds.

CHINA CLAY.—Inquiries for both imported and domestic china clay are fairly numerous although the market has been decidedly quiet of late. Contract withdrawals are being well maintained and prices remain steady. Domestic washed clay is still selling at from $8 to $9 a ton, at mine, and pulverized at $10 a ton. Foreign china clay is quoted at from $13 to $22 a ton, in bulk, ship side.

CHLORINE.—Conditions in the chlorine market are favorable The prevailing demand is quite satisfactory for the time of the year, and prices are holding up to schedule. Chlorine is quoted at 4 cents a pound, in tanks, or multi-unit cars, at works, on contract, while the spot price is from 4¼ to 4¾ cents a pound.

ROSIN.—Consumption of rosin is reported to have fallen off slightly, although a fair volume of inguiries are being received for future business. Prices are somewhat weaker than recently quoted. At the naval stores, the grades of rosin mostly used in the paper mills are offered at from $15 to $15.35 per 280 pounds, ex dock, in barrels.

SALT CAKE.—The tone of the salt cake market is steady and with surplus stocks rather limited, prices are very firm. Contract shipments of salt cake are being well maintained. Many observers of this market express the view that the industry will enjoy great activity during the balance of the year. Salt cake is quoted at from $18 to $20 a ton, in bulk, at works.

SODA ASH.—Manufacturers of soda ash report that shipments on contract are proceeding at a normal pace, and that consumption is keeping up with production in an excellent manner. The spot market remains rather quiet, but a revival of activity is expected after Labor Day. Contract quotations, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.25; in bags, $1.38, and in barrels, $1.63.

STARCH.—Trading in the starch market during the past week was fairly active. Consumption of this product shows no signs of decreasing. Supplies continue to move into consumption at a normal rate. Special paper makers' starch is still offered at $3.42 per 100 pounds, and at $3.59 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—Quietness continues to prevail in the sulphate of alumina market. The movement on contract is being well maintained, however, and a more active market is anticipated in some quarters for the near future. Prices are practically unchanged. Commercial grades of sulphate of alumina are quoted at from $1.40 to $1.45, in bags, at works, in car lots. The iron free is selling at from $2 to $2.05 per 100 pounds, at works.

SULPHUR.—During the past week, business in the sulphur market was mainly along routine lines. Stocks on hand are said to be in sufficient volume to take care of current demand. Contract withdrawals continue to go forward in good volume for the time of the year. Sulphur is quoted at from $18 to $19 a ton, in bulk, at mine, and at from $21 to $23 a ton, ship side.

TALC.—Conditions in the talc market are fairly satisfactory. Demand from the paper mills for this product is along seasonal lines, and prices are being maintained in most instances. Quotations on domestic talc range from $16 to $18 a ton, at eastern mines. French talc is quoted at from $18 to $22 a ton, ship side.

DEMAND IN LOS ANGELES

(*Continued from page 40*)

is M. C. Cooper, who has been in the paper business nearly all of his business life and who is an expert on the collection, the handling and the disposition of waste paper stock.

General Trade News

C. W. Denison, manager of the fine paper department for Blake, Moffit & Towne, expects to leave on his annual vacation between now and the end of the month. He will be gone from his desk the better part of a month before returning.

R. H. Erlandson, manager of the mill department of Blake, Moffit & Towne, is at present enjoying his vacation at one of the near by beaches.

Sales Manager Graham of the Paraffine Companies, Inc., is back from his vacation, passed at Coronado Beach, San Diego.

President R. S. Shainwald and W. H. Lowe, officials of the Paraffine Companies, Inc., from the main office at San Franscisco, were visitors in Los Angeles during the last week inspecting the various branches of the company here.

Crown Willamette Paper Co. Earnings

PORTLAND, Ore., August 26, 1926.—A correction has been issued by Elythe, Witter & Co., concerning the report of earnings of the Crown Williamette Paper Company, published recently in certain financial columns in San Francisco. The new figures of the financial company show that the earnings on junior securities were larger than those indicated in the first report. The new figures include earnings of the Pacific Mills, Ltd., a subsidiary, which amounted to $395,527.99.

The net earnings for the half year ending June 30, 1926, after allowing for depreciation, depletion, federal taxes, and $600,000 to cover six months interest on the 6 per cent bonds, amounted to $1,742,699.36. Balance available for dividends on common stock after allowing $723,000 for dividends on first and second preferred shares was $919,699, the equivalent of the earnings on common shares at the annual rate of $1.83, or 91.9 cents for the six months.

Atlanta Envelope Co. Expands

ATLANTA, Ga., August 30, 1926.—During the past few weeks, the Atlanta Envelope company, manufacturer of commercial envelopes, has increased its capacity. Several of the latest type automatic envelope machines have been added, with the result that the daily capacity of the plant is now approximately three-quarters of a million envelopes, or an output of one and a half thousand envelopes per minute.

"The new envelope equipment," states S. Guthman, president of the organization, "enables us to realize fully our ideal of real envelope service—which, in brief, is to make it possible for the envelope user to get envelopes almost as quickly as pencils or stamps."